PUBLIC UTILITIES FORTNIGHTLY
25th ANNIVERSARY
1929-1954

Public Utilities

Volume 54 No. 10 November 11, 1954

Here's Proof of Performance...

Replacements have been few in this 38-year-old line of CREOSOTED poles

CLOSE-UP of one of these 38-year-old creosoted poles.

IN THE MERTENS-TO-MALONE LINE of Texas Power and Light Company, 94% of the Creosoted poles installed in 1916 are still in service.

TEXAS Power and Light Company has had excellent performance from poles treated with Creosote on many locations in its far-flung system. For example, the long life in the section between Mertens and Malone is outstanding.

In 1916, 196 Southern Yellow Pine poles, treated with Creosote, replaced untreated poles that had given less than 15 years' service. To date, only about six per cent of these poles have been replaced, and most of the replaced poles were casualties from reasons other than decay.

Texas Power and Light Company feels that there are at least 10 years of life left in the remaining poles, and when they are replaced, poles treated with Creosote will be used again.

Creosote's combination of toxicity and permanence is the reason why it has established so many service records like this. And service records, after all, are your best assurance of future performance from wood preservative.

You can take an additional s toward finest performance by spe fying USS Creosote. USS Crecs is the uniform product of continuo tar processing in the plants of Uni States Steel. For further inform tion, contact our nearest Coal Che ical sales office or write to Uni States Steel Corporation, 525 W liam Penn Place, Pittsburgh 3 Pennsylvania.

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ARTICLES

FEATURE SECTIONS

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4 B&W BOILERS A
P·G·and E·

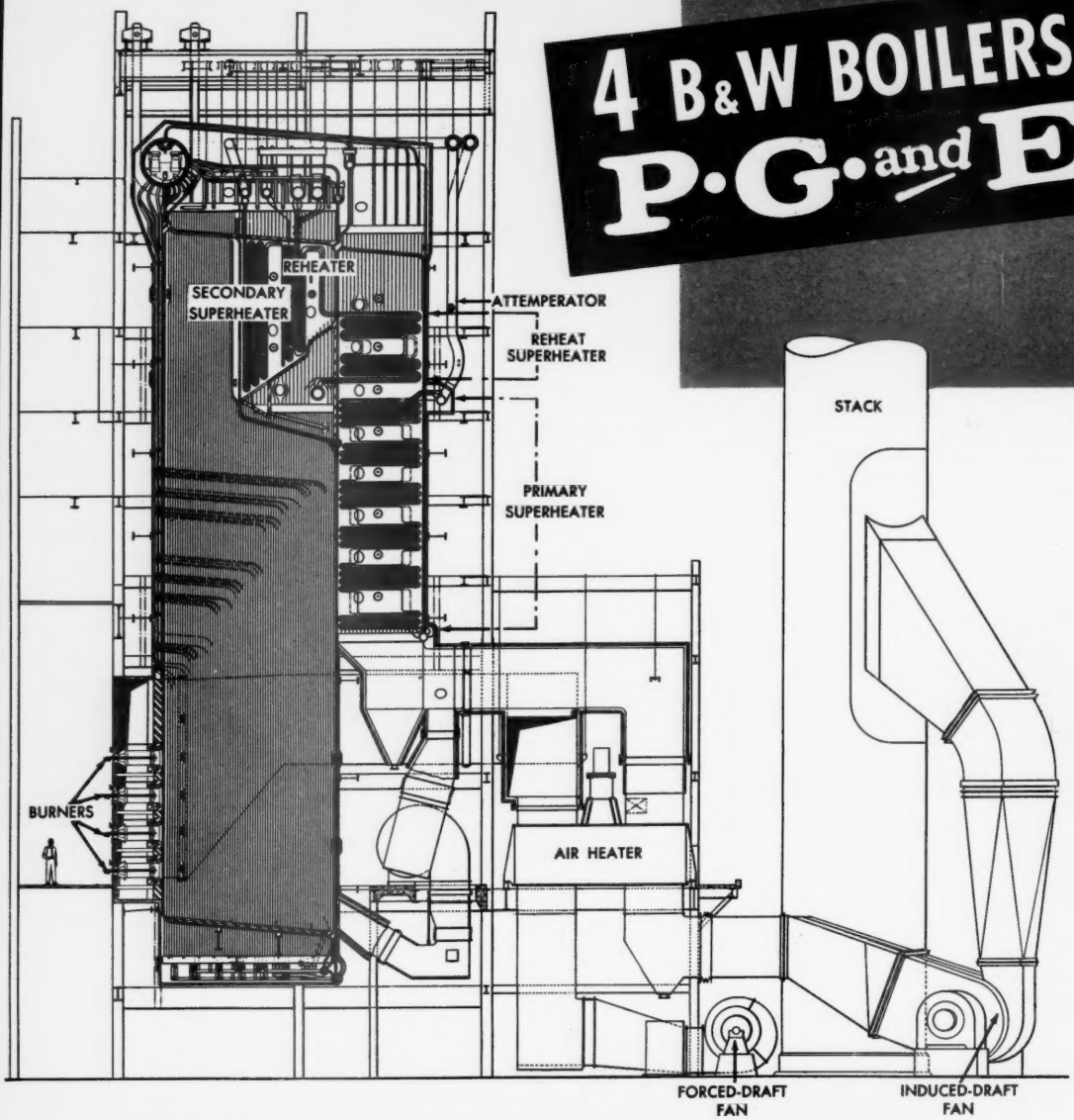
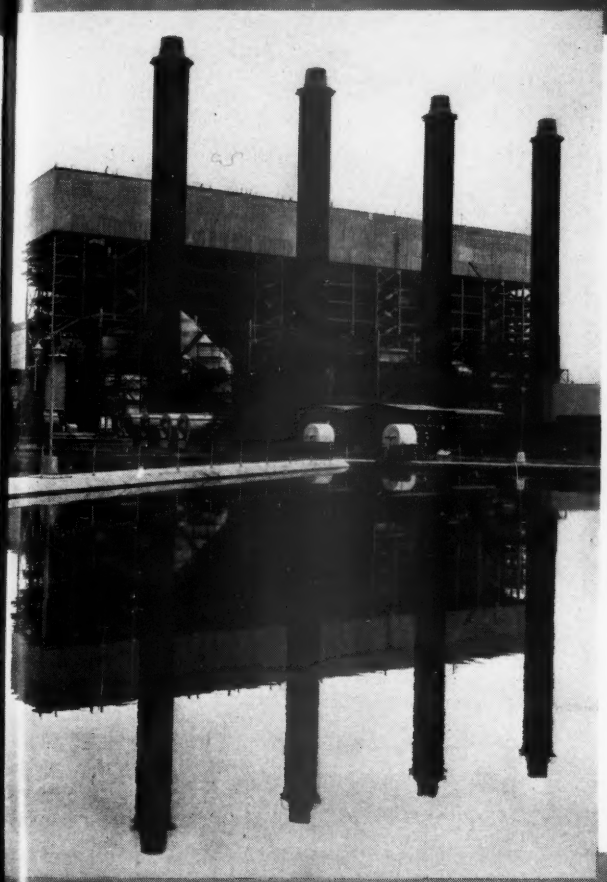


Diagram of one of four B&W Radiant Reheat Boilers with natural circulation. Designed for outdoor installation, each unit has a steam capacity of 1,080,000 lb per hr. Design pressure is 2050 psi and steam at 1850 psi will be superheated to 1000 F, with reheat to 1000 F.

With the emphasis on low initial cost, high efficiency, and reliability of operation, Pacific Gas and Electric Company has built its new Pittsburg Plant to keep ahead of the increasing demands of this heavily industrialized California area. With a generating capacity of 600,000 kw, it is the largest steam-electric generating station yet built west of the Mississippi River and is indicative of the far-sighted planning of this utility.

The installation of four B&W Radiant Reheat Boilers will give the big Pittsburg Plant a steam capacity of over 4,000,000 lb per hr. Designed with B&W Cyclone Steam Separators for natural circulation, each unit is equipped to burn oil and natural gas with provision for later conversion to coal if this becomes desirable.

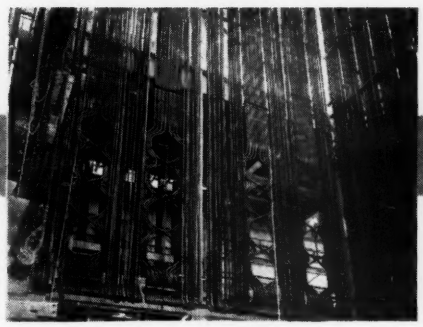
new Pittsburg Plant help generate 600,000 more kilowatts



One of the huge steam drums being jockeyed into place. Each drum weighs more than 150 tons and is 56 feet long.

P. G. and E.'s new modern Pittsburg Plant is the largest steam-electric generating station in the West. Everything except the control room, firing aisles and ends of turbines is outdoors. Bechtel Corp., engineers.

Front of boiler furnace wall under construction. Openings are for the 16 burners with which each unit is equipped.



This outstanding station represents a combination of new engineering trends and sound design practices. The B&W steam generators at the Pittsburg Plant are among the most modern of their type; one more example of the unending cooperative efforts of power company and B&W engineers working together for almost a century to attain ever-higher peaks of efficiency in power generation.

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Pages with the Editors

ONE of the most difficult problems in finance is the choice of the techniques to use in offering common stocks. JOHN F. CHILDS, in our opening article, discusses the advantages accruing from the practice of paying fees to dealers for obtaining subscriptions in a rights offering. This is becoming a lively subject for discussion in financial circles. It has its advocates and objectors. In a forthcoming issue we plan to present a somewhat different analysis of the dealer participation idea.

MR. CHILDS is a vice president and head of the Irving Trust Company's public utility department, well known for its public utility round tables, and other special services for the utility industry. A native of New York city, MR. CHILDS was educated at Trinity College at Hartford, Connecticut (BS, '31; MS, '32), and Harvard Graduate Business School (MBA, '33). He spent four years in the Navy as Lieutenant Commander, and has for many years specialized in public utility finance.

MR. CHILDS has been the author of numerous articles on finance, investor relations, and cost of capital, and has appeared before regulatory commissions on financial matters. Marjorie H. Cruthers, a staff assistant in the Irving Trust Company's public utility department, was responsible for preparing an original report on the subject for a joint industry committee of associations of security dealers, brokers, and investment banking companies, and has furnished the background material for this article.

LINCOLN SMITH

JOHN F. CHILDS

WE are aware, of course, that there are other views on this important subject of dealer participation. Questions may be raised, for example, as to the sufficiency of experimental studies to date and whether companies which have used it before continue to use it. There is also the interesting problem of whether measure of market performance limited to the trading period of rights gives enough recognition to what happens after the announcement but prior to the rights trading period. We hope to have more about this later.

* * * *

BACK in 1929, a member of the staff of this publication, Francis X. Welch, who is now its editor, wrote for it an article on what he regarded as a trend from lawyers to laymen on the state regulatory commissions. Welch's article was based on questionnaires circulated among the various state commissions and has since been cited and quoted a number of times by

other writers interested in the functional background of the state regulatory commissions.

WHAT has happened to this "trend," first noted twenty-five years ago? This question intrigued a very serious and advanced student of business economics who made another careful survey, based on questionnaires soliciting information about the business and professional background of our state commissioners. This article, which begins on page 630, indicates that the lawyer-to-layman trend first noted in this magazine in 1929 has advanced moderately. But there are other significant developments which have occurred, including a trend towards more businessmen on our state commissions.

DR. LINCOLN SMITH, author of this article, entitled "Trend from Lawyers to Laymen on State Commissions," is a political scientist specializing in politics and public administration. A native of Maine, he is a graduate of Bowdoin College. He took his AM and PhD degrees at the University of Wisconsin, and has taught at Yale, the University of Pennsylvania, and the University of California at Los Angeles. For the past few years he has been visiting scholar at Columbia University.

* * * *

WHILE the employee accident rate in the electric utility industry has constantly improved since 1947, the rate of improvement has shown signs of lagging behind comparative progress of other industries. The average frequency of accidents for all industry last year was considerably lower than the accident frequency rate for the electric utilities. Is there any reason why this should be so? If not, is there any way in which the situation can be corrected?

C. B. BOULET, personnel director of the Wisconsin Public Service Corporation, in his article beginning on page 640, offers some valuable suggestions for the improvement of safety in public utility operations. The author also goes into the matter of self-examination by utility executives for purposes of insuring more constant and careful supervision of accident prevention, with emphasis on the human, as distinguished from the mechanical, aspects.

C. B. BOULET

MR. BOULET is a native of Green Bay, Wisconsin, and a graduate of Milwaukee State Teachers College. He has been with the Wisconsin Public Service Corporation since 1941 as office manager, safety engineer, and is at present director of personnel. He has written numerous articles on accident prevention and various phases of personnel administration. He is coeditor of a book, entitled *Industrial Safety Engineering,* and past president of the American Society of Safety Engineers.

* * * *

AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

THE Connecticut commission, in considering a gas and electric company's application for an electric rate increase, considers whether increases in the company's gas rates, in view of the competitive nature of gas as a fuel for cooking and heating, would serve any useful purpose in increasing the company's earnings. (See page 65.)

THE next number of this magazine will be out November 25th.

The Editors

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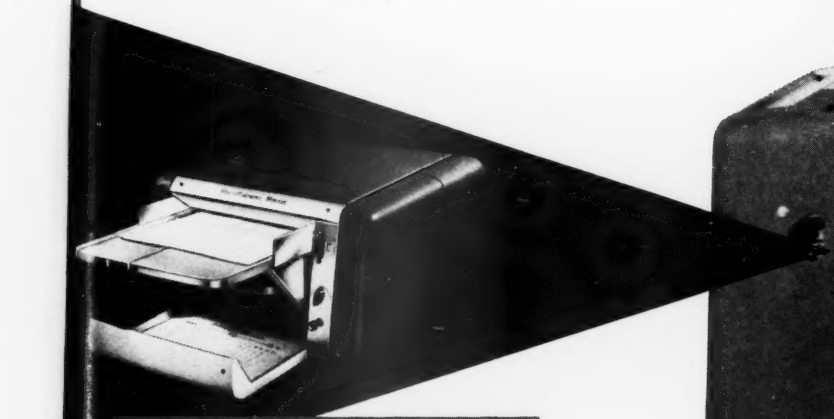

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TOWARD A BETTER UNDERSTANDING

In recent years the competition in industry for the services of trained men and women in all fields of intellectual accomplishment has awakened interest in the need of stabilizing the productivity of our nation's colleges and universities. Responsible business leaders now acknowledge that opportunities for advance learning should be made available to a greater number of deserving young men and women. This article by Everett L. Palmer, assistant to the president and secretary of the Pennsylvania Power & Light Company, describes an interesting program recently authorized by the directors of that company. It includes not only undergraduate scholarships but additional financial aid to the colleges aside from scholarships.

PROFESSIONAL QUALIFICATIONS OF FEDERAL REGULATORY COMMISSIONERS. Part 1.

Since the Eisenhower administration came to Washington, there has been a noticeable trend toward the appointment of state regulatory commissioners to federal regulatory commissions. There are a number of reasons for this use of the state commissions as a training ground for federal agencies, including a large backlog of federal commission "holdover" personnel with a different political faith than that of the present administration. But there are more fundamental trends to be analyzed. What is the background of our federal commission membership? Is the trend toward or away from lawyer members? These and other interesting aspects of federal commission membership are discussed by Dr. Lincoln Smith, visiting scholar, Columbia University, in a 2-part series beginning in the next issue.

IT'S A CHANGED UTILITY WORLD!

Recently the electric industry celebrated the seventy-fifth anniversary of Edison's discovery of the electric light. Admittedly, the electric utility business has come a long way in this three-quarters of a century. But so has our system of public utility regulation, which got started generally about a quarter of a century later. Especially during the last twenty-five years, the techniques of forming and disseminating principles governing the operation of our public service utilities have undergone an intensive period of development and improvement. James H. Collins, professional author of business articles, takes us back to the problems of 1929 and compares them with those of 1954 in the field of public utility operation.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

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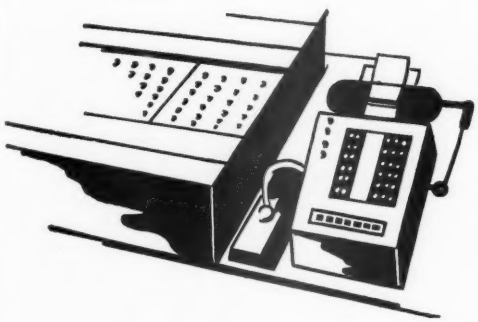

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Remarkable Remarks

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—MONTAIGNE

CHARLES E. WILSON
Secretary of Defense.

"It is a mistake to believe that defense orders bring prosperity or for a community to get a vested interest in war through military expenditures. It is production for consumption that brings prosperity."

CHARLES E. SMITH, JR.
President, Steel Improvement & Forge Company.

"Most of our labor troubles today could be avoided if the employees affected were convinced in their own minds that the motives of management are sincere and honest and that in the past management has dealt with its employees as fairly as was humanly possible."

EDGAR W. HIESTAND
U. S. Representative from California.

"Careful moves both by the administration and Congress safely turned the country away from a war-spending economy to a sound peace economy. This was done without a depression and in spite of the concerted campaign promoted by the howlers of gloom and doom who did their best to throw us into a depression."

Excerpt from 1953 annual report, The Cleveland Electric Illuminating Company.

"The preference clause denies business-managed electric companies an equal right to purchase and distribute government-generated, tax-free power. Four-fifths of America's taxpayers are served by investor-owned companies. Thus 80 per cent of the people are forced to subsidize below-cost power for the benefit of the remaining 20 per cent."

WILLFORD I. KING
Economist, Committee for Constitutional Government.

"Under free competition, industries are operated by millions of entrepreneurs—each something of an expert in his limited field. When government engages in enterprise, the complexity of its task makes necessary the adoption of multitudinous rules and regulations. The inevitable result is that operations become entangled in a web of red tape."

WILLARD F. ROCKWELL
Chairman of the board, Rockwell Manufacturing Company.

"The history of Socialism goes back as far as there are human records, and it proves that no man and no government can raise the level of a community's wealth or welfare by chopping off the heads of leaders in any productive activity who seek to rise above the common level. Chopping off heads and chopping off incomes are somewhat similar in effect!"

DAVID L. FRANCIS
President, Princess Elkhorn Coal Company.

"We feel that the major solution to a profitable coal industry is a basic change in the government and utility buying practices. . . . This policy should naturally consider the fact that the utilities plan to buy 100 per cent more coal in the next decade than they do at present and therefore the coal industry should be kept financially sound in order to provide for the tremendous capital expenditures necessary for expansion."

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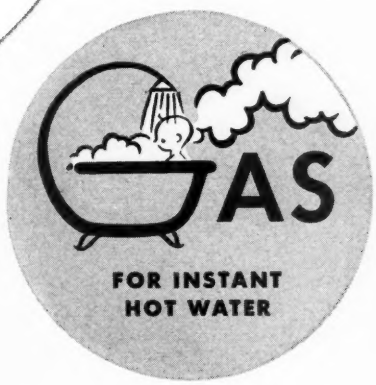

CHARLESTON GROUP: United Fuel Gas Company, Atlantic Seaboard Corporation, Amere Gas Utilities Company, Virginia Gas Distribution Corporation, Big Marsh Oil Company, Central Kentucky Natural Gas Company; **COLUMBUS GROUP:** The Ohio Fuel Gas Company; **PITTSBURGH GROUP:** The Manufacturers Light and Heat Company, Binghamton Gas Works, Cumberland and Allegheny Gas Company, Home Gas Company, The Keystone Gas Company, Inc., Natural Gas Company of West Virginia; **OIL GROUP:** The Preston Oil Company.

REMARKABLE REMARKS—(*Continued*)

HERBERT HOOVER
Former President of the United States.

"The day when you decide that the government is your brother's keeper, that is the day when personal responsibility for your brother is lost."

SINCLAIR WEEKS
Secretary of Commerce.

"Government's duty is to prevent any segment of business from improperly and unfairly using competitive enterprise to the detriment of consumers, other business concerns, and the general public."

STYLES BRIDGES
U. S. Senator from New Hampshire.

"We better let the Communists know what our position is, who our friends are, and what we will consider aggressive action. I do not completely subscribe to the retaliation theory. I have tried to find just where the unique idea came from that in a Republican form of government we are automatically supposed to allow our enemy to attack first."

JAMES R. KILLIAN
President, Massachusetts Institute of Technology.

"New technology dictates new concepts of size and shows the beneficent value of bigness when bigness fills an economic and social need. Tax laws will have to recognize technological change and the vital importance of encouraging it. We shall have to find ways of increasing available venture capital. Labor as well as management will have to adjust to changing conditions. New problems of the job security of the individual worker will have to be solved so that we may upgrade and not uproot. We shall need more effective liaison and collaboration between the economist and the businessman."

FRANK CHODOROV
Editor, Freeman.

"Common sense and logic both bear witness to the fact that a dollar in the hands of the producer and earner is grist to the general economy, and may therefore be said to render a 'social service.' On the other hand, every dollar the tax collector gets hold of is nonproductive. The best he can do for society with the money he takes from it is to provide police protection, which is a negative service; the traffic cop is certainly a useful citizen, but he adds nothing to the general fund of wealth. It follows that the fewer dollars the tax collector gets, whether from oillionaires or bricklayers, the better off both are."

CLIFFORD F. HOOD
President, United States Steel Corporation.

". . . as we prepare for the next heat of steel, let us embrace the number one attribute for success which is to think logically and clearly to a conclusion so that we may charge it with vision and imagination; integrity and a full measure of employee understanding; a knowledge of the past and truthful appraisal of our future objectives; faith in freedom, and trust in constitutional government. And above all, let us keep the opportunity open to continue rendering that service to our economy through profitable private enterprise with the just rewards that accrue to good honest American effort. And every day, whatever your activity, keep watch over this vital task before us and say, with me, 'God help us to preserve this land where freedom's bounties have no end.'"

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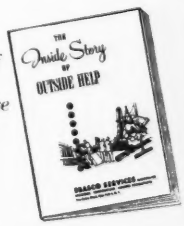

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Is it also a really economical "short haul" system?

Certainly! Type 45A "proves in" at less than 15 miles in competition with open wire, crossarms, and poles. Usually it will "prove in" in competition with 19-gauge voice-loaded cable for distances as short as 10 miles.

Can it be placed on the same pair with low-frequency systems?

Yes. It operates above other systems using "standard" frequency assignments, such as the Lenkurt 32E or 33A. This means that one pair can be used for as many as 16 or 17 conversations and dialing paths simultaneously.

Does it provide dependable circuit equivalents?

Field tests indicate that even under heavy sleet conditions the level of transmission for each channel remains constant within plus or minus 0.5 db, when the system is engineered within recommended limitations.

What transposition problems will it create?

Because of the "triple regulation" technique employed (flat loss, slope loss, and channel mop-up), the first system installed on a line can usually be placed on any copper or Copperweld pair, utilizing almost any existing transposition patterns. Multiple system installations will require crosstalk tests, but, in many situations, 30 KC transpositions will be adequate for two or three 12-channel systems. If Compandors are used on the carrier channels, more systems may be possible on 30 KC transposed leads.

Can you "start small" and expand?

Yes. Because of the 45A's unitized design, you can start out with only four channels (or less) and expand later to the full 12-channel capacity—a few channels (preferably four) at a time.

What operating adjustments will be necessary?

Few, if any! After the initial line-up, the equipment adjusts *itself* to the length of line, changes in temperature, changes in attenuation due to rain, snow, or sleet. It requires no synchronization of channels, and, given the proper voltage-regulating transformers, is even immune to wide variations in line voltage.

What extra equipment is necessary for dialing?

None. The built-in dialing channels, which are remarkably free of distortion, can be connected directly to any trunk circuit equipped for "E & M" signaling.

What are its line-length limitations?

A pair of terminals provide enough gain to span line sections having attenuation of about 70 db, under worst weather conditions. Economical 12-channel repeaters are available for the longer systems which exceed these limits (acceptable signal-to-noise ratio should determine actual repeater spacing).

Will line troubles or power failures cause "locking up" of central office dial trunks?

Never, if the 45A is equipped with an optional alarm system with "disconnect", "make busy", and "loop test" features, which can be controlled (from a maintenance standpoint) from either end of the system. This is especially important with a remotely-located unattended office.

What are the power requirements?

The 45A system is designed to operate from a 24-, or 48-volt battery and 130-volt positive plate supply, or from 115/230-volt, 50/60 cycle AC mains by use of an auxiliary power pack.

What test equipment is needed?

All tests can be made with a simple, universal terminating test panel and appropriate cords, using only conventional test oscillators and VTVM.

There is no other H-F carrier system on the market that gives as much value for your money as the Lenkurt Type 45A!

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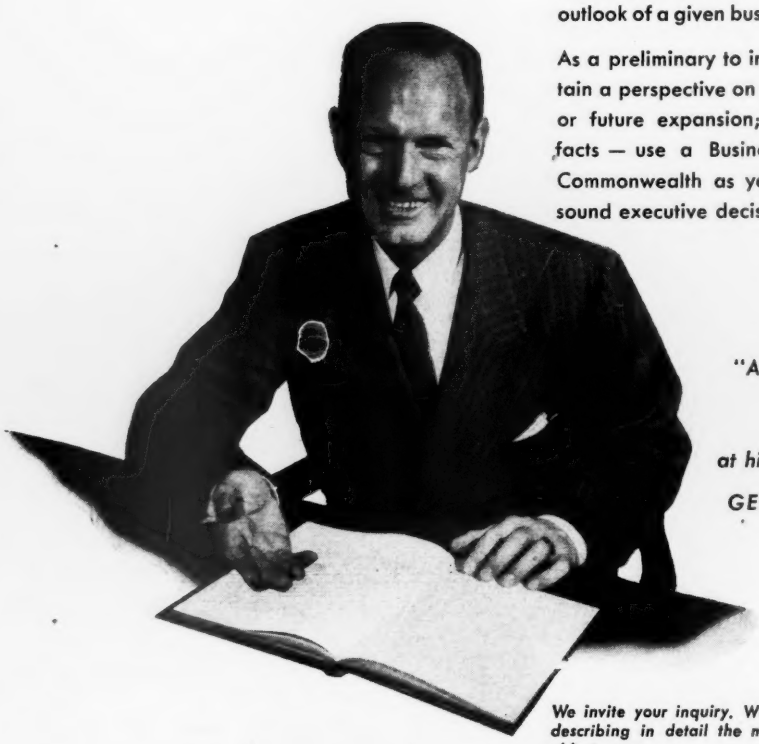

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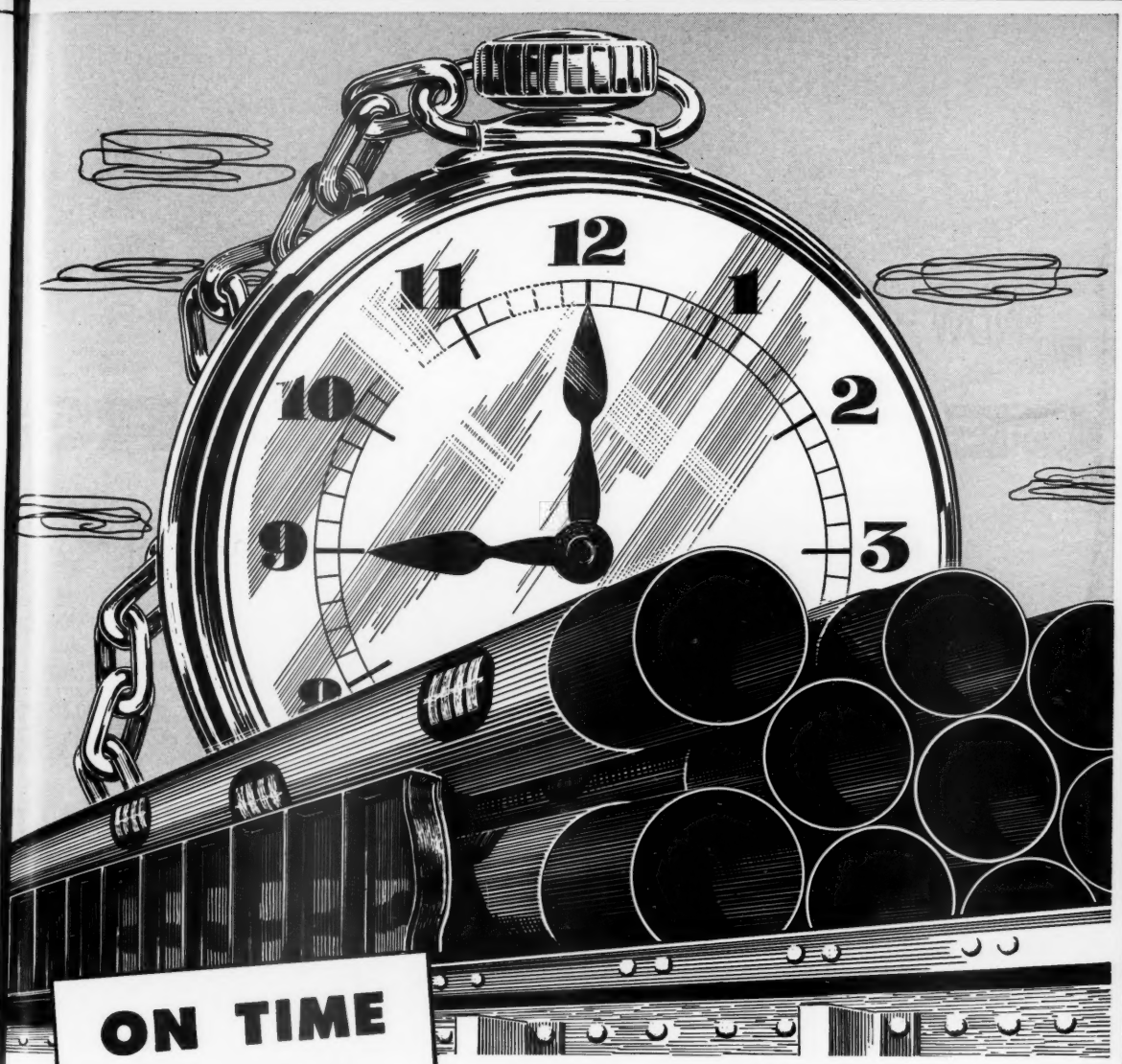

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Now, with specially designed generators and controls in completely integrated units, Electro-Mobile Power brings dependable production of current for boosting or emergencies—assuring maximum kilowatt capacity with minimum capital investment!

All components, specially built for compatibility with each other, are our own products. All service and parts are had from a single source—already available nationwide.

Here, from two decades' experience in building Diesel-Electric locomotives—equipment that right now equals, in capacity, *one-sixth* of all the country's installed electrical generating equipment—is a versatile and economical means to meet many of the perplexing and expensive problems of the fringe areas. We'd be glad to discuss your specific needs.

Sold and serviced directly through a manufacturer's organization.

Electro-Motive Division offices located in: New York City, Chicago, Jacksonville, St. Louis and San Francisco.

Electro-Motive Division

GENERAL MOTORS

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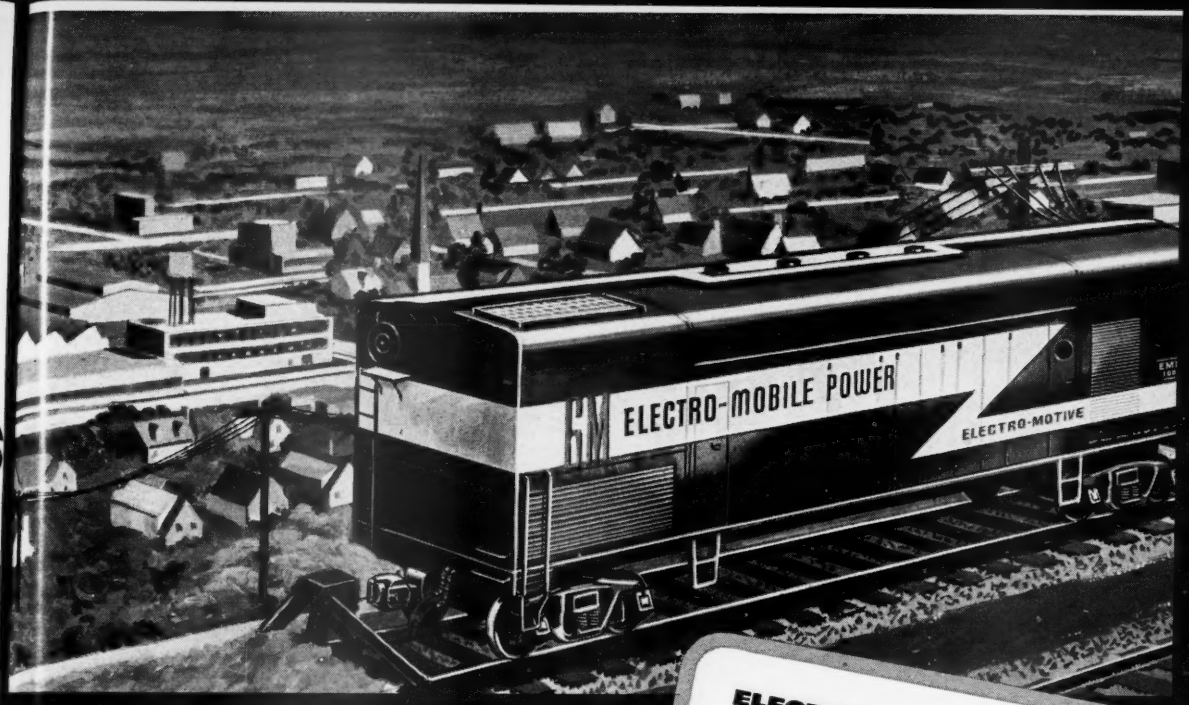

RAIL CAR 1000, 750 and 500 kw. units for use on sidings or placed on piers for semi-permanent use.

POWER

ELECTRO-MOBILE POWER

FEATURES INCLUDE:

- Remote control starting and stopping
- From starting to full load within 45 seconds
- Automatic synchronization with line in phase, frequency and voltage
- Inherent 25% overload capacity
- Full protective equipment, including 3-phase surge capacitors, lightning arresters, over-current relays, field failure relay
- Complete self-operation can be provided
- Ability to meet higher capacity needs by unit multiplication
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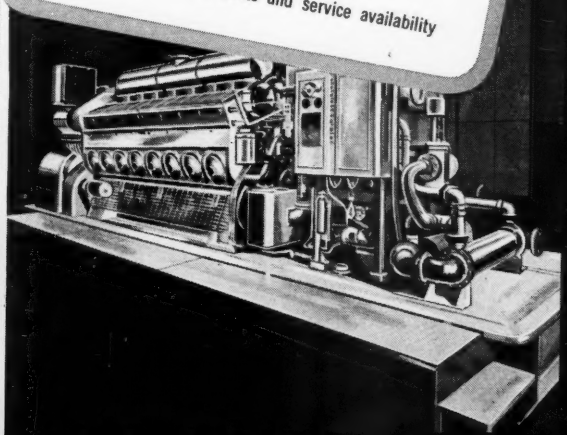
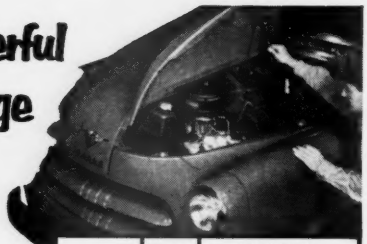
TRUCK TRAILER 500 and 350 kw. units to move on highways to desired sites.



PORTABLE UNIT 1000, 750, 500 and 350 kw. capacities for permanent or semi-permanent installations.

World's best trucks... by actual comparison!

Most powerful low-tonnage truck engine!



Here's proof

New Power-Dome V-8 delivers sensational 145 hp. . . . more than any other low-tonnage truck engine

	DODGE	TRUCKS F	I	G	C
Max. HP. of leading ½-, ¾-, 1-ton trucks	145-hp.	130-HP.	126-HP.	125-HP.	112-HP.
HP. per cu. in. displacement	.601	.544	.524	.503	.476

Best truck visibility!

Facts prove it

MAKE	DODGE	TRUCK F	TRUCK I	TRUCK G	TRUCK C
Windshield Area	951 sq. in.	938 SQ. IN.	841 SQ. IN.	728 SQ. IN.	728 SQ. IN.
Total Vision Area	2261 sq. in.	2103 SQ. IN.	1705 SQ. IN.	1890 SQ. IN.	1890 SQ. IN.

Sharpest turning trucks!

and here's the proof...

Make of ½-ton Pick-Up	No. of ft. for U-Turn
DODGE	**36¾′**
TRUCK F	37½′
TRUCK I	38½′
TRUCK G	41′
TRUCK C	39½′

Roomiest truck cab!

Here's proof!

Make of Truck	Hip-room	Shoulder-room	Seat Height
DODGE	**61¾″**	**58⅜″**	**16″**
TRUCK F	60¾″	56¼″	15 11/32″
TRUCK C	60″	55½″	14¼″
TRUCK G	60″	55½″	14¼″
TRUCK I	58¼″	57″	13⅞″

DODGE "Job-Rated" TRUCKS

ASK US TODAY ABOUT A BETTER DEAL FOR THE MAN AT THE WHEEL!

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With Bell System services, you get efficient and dependable communications at low cost. You are relieved of maintenance, depreciation and other costs of privately owned communications.

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It's flexible and complete. We furnish communications tailored to your exact needs. No more, no less. A change in number or type of circuits can be made any time to keep your communications in step with changing needs.

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The Bell System is constantly developing new equipment, methods and techniques to improve your service and keep your communications from becoming obsolete.

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Your capital is *not* tied up in communications equipment but is available for investment in income-producing power equipment and services.

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Our business is entirely communications, and that's one reason the Bell System offers power companies the finest services today. A communications study by specialists, made without charge, frequently indicates how a power company can improve its communications and realize increased benefits and economies. Talk this over with the Bell Telephone representative near you.


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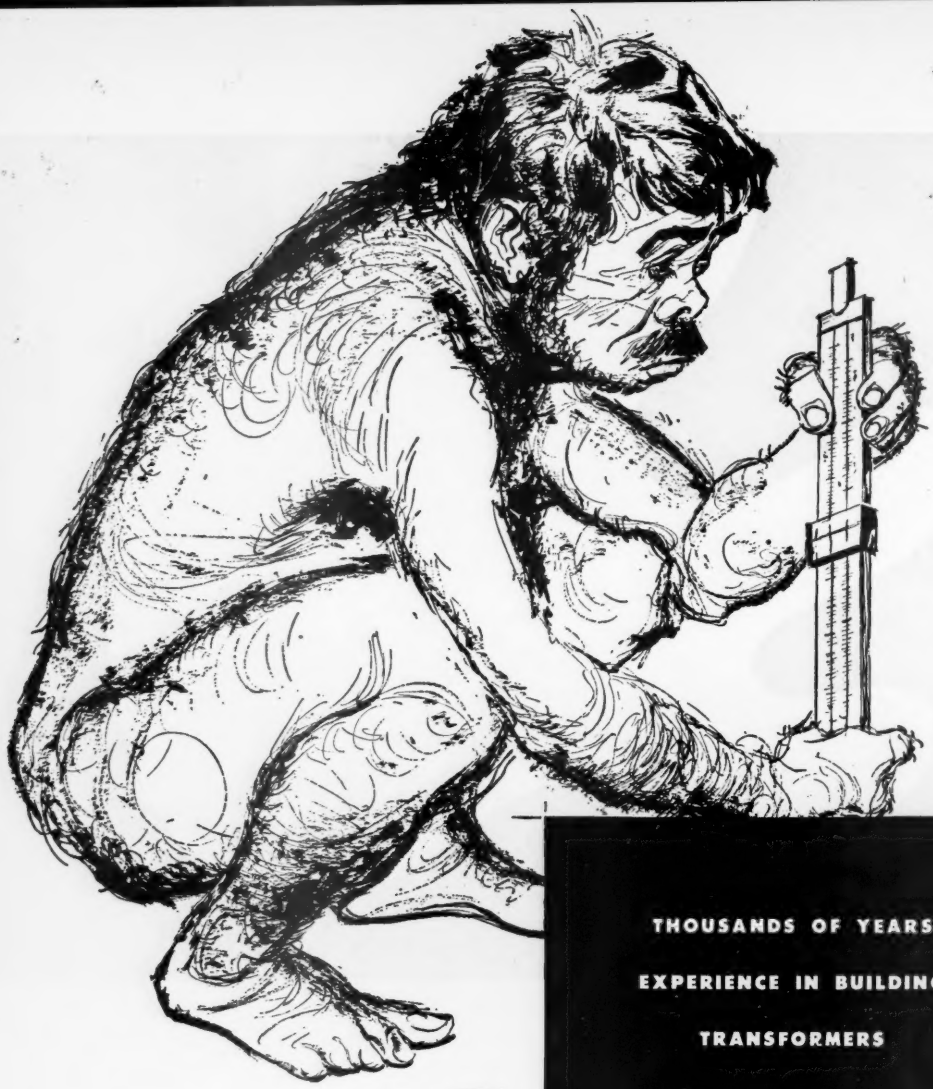

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UTILITIES
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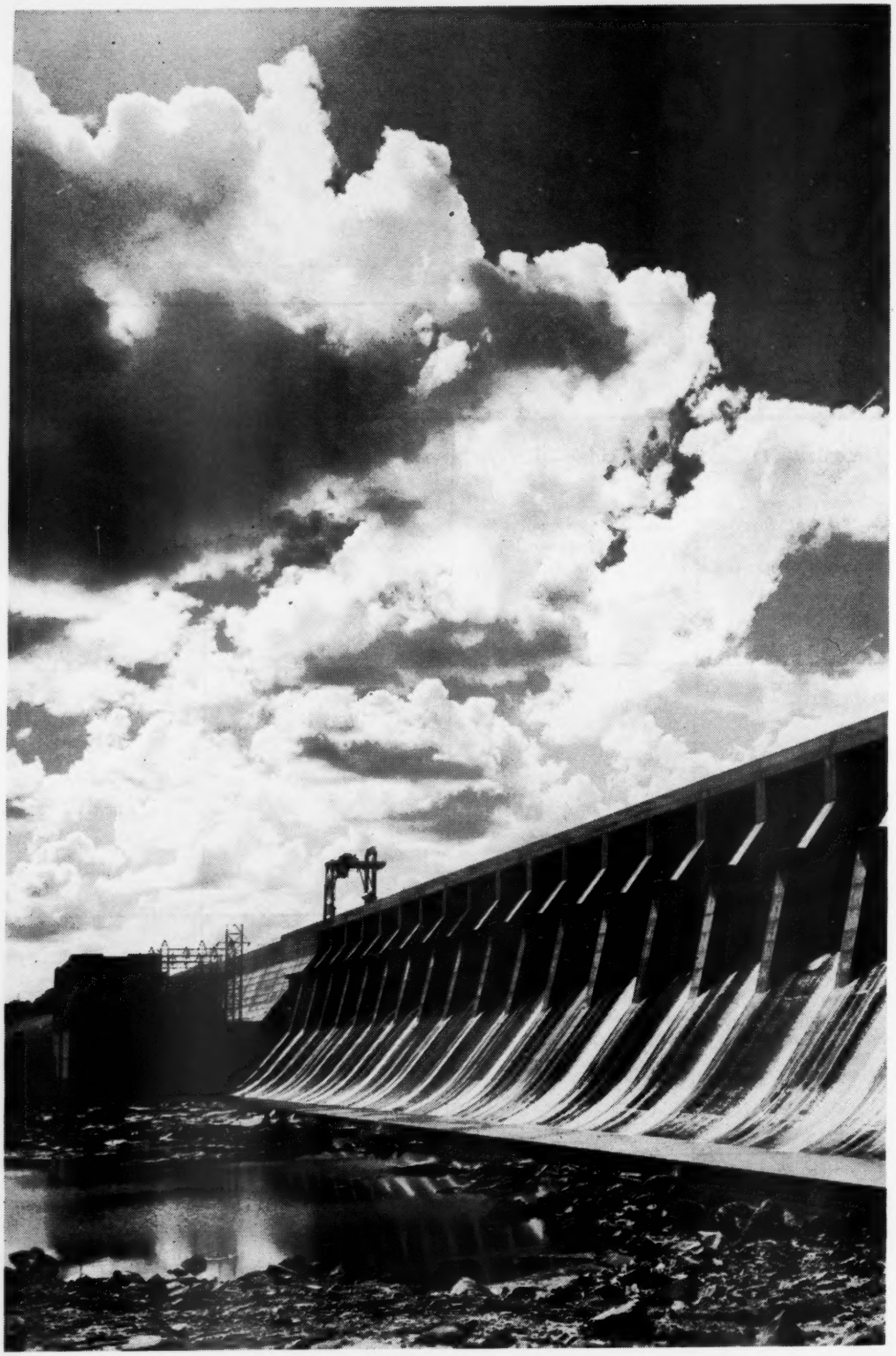
NOVEMBER

Thursday—11 *Southeastern Electric Exchange, Accident Prevention Committee, begins meeting, Baton Rouge, La.*	**Friday—12** *Public Information Program, Mid-Atlantic Region, begins meeting, Washington, D. C.*	**Saturday—13** *Georgia Telephone Association ends 2-day annual convention, Augusta, Ga.*	**Sunday—14** *American Society of Mechanical Engineers will hold annual meeting, New York, N. Y. Nov. 28-Dec. 3.* ***Advance notice.***
Monday—15 *American Standards Association begins annual meeting, New York, N. Y.*	**Tuesday—16** *Florida Telephone Association ends 2-day annual convention, St. Petersburg, Fla.*	**Wednesday—17** *Wisconsin Utilities Association begins electric-gas sales and engineering convention, Milwaukee, Wis.*	**Thursday—18** *National Farm Electrification Conference begins, Schenectady, N.Y.*
Friday—19 *Southeastern Gas Association begins residential sales conference, Little Rock, Ark.*	**Saturday—20** *American School Food Service Association ends 5-day meeting, Miami Beach, Fla.*	**Sunday—21** *Edison Electric Institute, Prime Movers Committee, will hold meeting, New York, N. Y. Nov. 29, 30.* ***Advance notice.***	**Monday—22** *American Association of Advertising Agencies, Eastern Council, begins meeting, New York, N. Y.*
Tuesday—23 *Public Utilities Advertising Association, Region 2, will hold meeting, New York, N. Y. Dec. 2, 3.* ***Advance notice.***	**Wednesday—24** *American Water Works Association, Cuban Section, will hold annual meeting, Havana, Cuba, Dec. 2-4.* ***Advance notice.***	**Thursday—25** *National Power Show will be held, Philadelphia, Pa. Dec. 2-7.* ***Advance notice.***	**Friday—26** *New England Gas Association will hold appliance servicing conference, Boston, Mass. Dec. 7.* ***Advance notice.***



Hydro Plant on the Oconee

The Sinclair dam of Georgia Power Company near Milledgeville, Georgia.

Public Utilities
FORTNIGHTLY

VOL. 54, NO. 10 NOVEMBER 11, 1954

A Technique of Offering Common Stock through Rights

This article points out the importance of giving consideration to the technique of paying fees to dealers, at relatively small cost, for aiding stockholders in exercising their rights for new stock. Another viewpoint on this important and somewhat controversial subject will be presented in a forthcoming article in this magazine.

BY JOHN F. CHILDS*

WHAT is the best way to raise common equity money? This is one of the most important financial questions to be decided by the management of an expanding company. The first decision is whether or not the new shares should be offered through rights to stockholders or sold directly to the public. To be able to answer that question all the details of both methods of offerings must be thoroughly evaluated.

For purposes of this article we will bypass that broad question of the advantages of rights *versus* nonrights and concentrate on an offering to stockholders. We will even go a step further and limit our discussion to an important question that arises in a rights offering—*should a company pay fees to security dealers for*

*Vice president, Irving Trust Company, New York, New York; with Marjorie H. Cruthers, staff assistant. For additional personal note, see "Pages with the Editors."

aiding stockholders in exercising their rights?

Is it a controversial subject? Yes! The dealers are naturally anxious to have companies pay such fees. For they receive no regular compensation for this function as they do when they handle security transactions for a customer. Some companies have studied this question. Quite a good proportion of these have used this technique and attest to the advantages of paying assisting dealers' fees on rights offerings. On the other hand, there are companies that have rejected the idea. As for the underwriters, some will say that this method is just an additional expense to a company; it is the underwriters' function to distribute securities and they can handle a financing better in their own way.

IN order to give direction to the discussion which follows, we will give our conclusions very briefly now. They result from a consideration of the logic of the situation, a study of the results of this technique, and the opinions of officers of companies which have tried it. The method used in each sale of securities will depend on all the surrounding circumstances, and no set of rules can be laid down which will fit each issue. However, we concluded that it is worth while to give consideration to the payment of fees to security dealers for aiding stockholders in exercising their rights in subscribing for additional stock for the following reasons:

1. It should improve the market action of the stock during the subscription period.
2. It ought to build good will with dealers, thus creating dealer interest in the stock after the offering period.
3. It is relatively inexpensive.
4. It need not interfere with other procedures used in a rights offering.

Since one of the most important reasons for paying dealers' fees is to improve the market action of the stock during the offering period, let's look briefly at what happens when a company offers stock through rights. For illustrative purposes, let us use a company called X.

THE board of directors meet and announce publicly that in two months there will be an offering of stock through rights. At the end of the two months, the directors meet again and announce publicly the subscription price. The subscription period usually starts the next day and lasts for about twenty days.

There are two principal influences which affect the market price of company X's stock. There is the influence of the general market for securities, and the effect of the pressure on the stock which is a result of the added supply of new stock.

No control can be exerted over the general market. It may go up, down, or stay level.

For the two months prior to the announcement of the subscription price, the price of the outstanding stock of Company X will tend to decrease in relation to the movement of the general market. This decrease is due to the anticipation of the added supply of stock. It is termed *preoffering pressure*. It is the per cent by which the market for the stock declines more than the general market for securities prior to the day the subscription price is set. Not much can be done to control the *preoffering pressure*. We will skip this matter of *preoffering pressure* and dis-

cuss the pressure during the offering period itself.

In our illustration, which is diagrammed in Table I on this page, let us assume that the price of the stock of Company X is $100 per share on the day the directors announce the subscription price, and that they establish the subscription price at $90 per share. The heavy full line represents the price of the stock of Company X; the dotted line represents an index of the general market for stocks.

As shown in Table I, the price of the company's stock was forced down by two factors. One of these was a *general market decline*. Again, the general market action cannot be controlled by the company or anyone else. The company must accept this as an inevitable risk.

The other factor which forced the stock down during the period when rights were traded was the actual pressure of the new offering resulting from the added supply of the new stock. The pressure during the time the rights are traded may be termed *subscription period pressure*. This pressure is usually greater than *preoffering pressure*. However, we believe something can be done to lessen its effect.

Needless to say, it certainly would be profitable to all concerned if the decline in the market price of the stock can be lessened during the subscription period. It will mean that the rights will have more value, directly benefiting the stockholders; or the subscription price could be set higher, resulting in more dollars to the company from the financing. Furthermore, a reduction in the *subscription period pressure* may indirectly help to lessen the *preoffering pressure*. That is, expectant buyers would be less inclined to postpone their purchases until the subscription period in the hopes of obtaining a bargain.

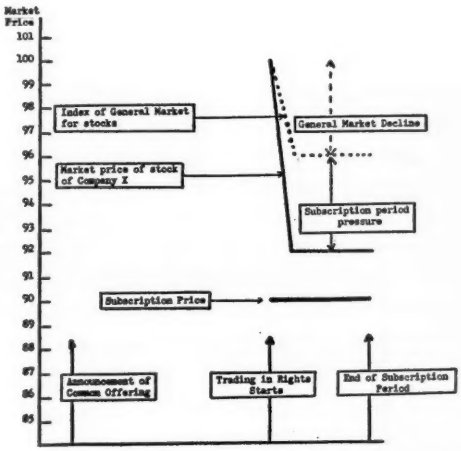
Pressure of New Offering—Its Cause

Since our problem is to reduce the subscription period pressure, a word may be said again about what causes the subscription period pressure and the resulting decline in the stock. The answer to that is principally a matter of supply and demand. Many stockholders sell their rights and thus dump them on the market. Then how can the pressure be reduced? Simply by getting the stockholders to exercise their rights. But how? To answer that let us consider what an ordinary stockholder does when he receives rights.

In the first place most warrants are complicated and they differ from company to company. The average stockholder does not understand them and does not know how to execute them. Therefore, he prob-

TABLE I

Illustration of Market Action of Stock During Period Rights are Traded



ably goes to his security dealer,[1] who originally sold him the stock. To help the stockholder exercise his rights and process them requires a dealer's time, effort, and expense, for which he is not recompensed. If, on the other hand, the dealer suggests that the stockholder sell the rights, the dealer will get a commission on the sale. In addition, now knowing his client has funds to invest, he can then recommend another security to the stockholder on which he will also receive a commission. In other words, the dealer will be paid for performing a normal service—which is his livelihood.

Means of Reducing Pressure

CANNOT something be worked out so that the dealer will be induced to cooperate to the benefit of all concerned? A quick look into some financial history will give us a clew to answering this question. During the depression years many companies were faced with maturing securities. In order to avoid financial difficulties it was necessary—in fact vitally necessary—to have the maturing securities exchanged for a new issue with an extended maturity. Examples can be found in which dealers were paid fees to help execute exchanges. Why? Because the companies knew that the dealers were the ones who would reach the individual security holders effectively.

Many examples can be found in recent years in which dealers have been paid a fee to help effect exchanges of preferred stocks in a refunding operation. The recent exchange of $45,000,000 of Georgia Power Company $6 preferred stock for new $4.60 preferred stock is an excellent example.

Seventy per cent of the stock was held in the company's territory. The management wanted as many exchanges as possible in order to keep the stock in the territory.

They also wanted to reduce the problem of refinancing such a large amount of stock. Dealers were paid a fee to help stockholders make exchanges.

Exchanges of debt and preferred issues are, of course, different from a rights offering of common stock but they do illustrate the effectiveness of the dealers in reaching the small stockholders.

IN 1946 the Southwestern Public Service Corporation found it advisable to exchange one preferred stock for another with a lower dividend rate. They paid dealers a fee to help effectuate that exchange. Subsequently, officials of the company began wondering if there might be some reason for paying a fee to dealers, as a supplement to the underwriters' commission, for obtaining subscriptions during a common stock offering. They were the first utility company to try this technique, and they have used it since 1947 for all their offerings of common stock. There is now a long list of companies which have used it.[2] And they did not do it without expecting to benefit. They gain the help and good will of a very important segment of the financial community throughout the entire country—the security dealers.

By paying a fee, the dealers are given an incentive to help stockholders who ask for their assistance in subscribing for new stock and an incentive to seek out stockholders to be sure that the stockholders take advantage of a rights offering. Through such a policy these companies are facing the problem of trying to reduce the effects of subscription period pressure.

The Importance of the Security Dealer

"THE dealers are a very important segment in the financial community and their good will is worth having, since, in many instances, they are the ones who recommend and induce people to purchase stock. Some companies hesitate to list their securities on a stock exchange because it eliminates the interest of the dealers since the dealers are restricted in their spread on listed issues. This not only indicates the importance of dealers, but suggests that once a security is listed that the payment of fees to dealers in a rights offering is one way to keep up their interest in a stock."

Illustration of Reduction in Pressure by Paying Dealers' Fees[3]

THE fact that pressure is reduced by paying assisting dealers' fees is illustrated in Table II (page 623). It gives twelve actual examples of the average pressure during the subscription period of the stocks of companies which paid assisting dealers' fees. The pressure was measured as follows: The market price of each company's stock was compared with the movement of the general market for securities during the same period as measured by the Standard & Poor's utilities common stock average. This was accomplished by the use of index numbers with the day before the rights were first traded taken as 100. When the market price of the stock was below the general market there was positive pressure, and conversely when the market price of the stock was above the general market there was an absence of pressure or negative pressure.

TABLE II includes all the offerings with assisting dealers' fees for obtaining

subscriptions made in 1949 and subsequent years to August 31, 1954, of electric companies with common stocks listed on the New York Stock Exchange. The reason for using electric companies is that their pattern of financing is more standard and of greater frequency.

It is quite remarkable how favorably these stocks acted in relation to the general market. In fact, only a small amount of positive pressure was present in four out of twelve offerings on an average during the offering period.

For comparative purposes, these twelve offerings can be contrasted with an equal number of examples, also included in Table II, of similar electric company offerings without assisting dealers' fees. These offerings were chosen on the basis that they were made closest in time to the offerings which included assisting dealers' fees and they were most similar in respect to the many factors which affect pressure. There was positive pressure in nine out of twelve of these offerings on an average during the offering period.

THE presence of negative pressure, or in other words when the stock does better than the general market, may be somewhat puzzling. Actually, the phenomena of negative pressure would not be expected to occur, because according to the law of supply and demand the added supply would automatically force the price of the stock down and thus produce a positive pressure. The reason for the apparent presence of negative pressure may be due to various factors. The Standard & Poor's utilities common stock index used to represent the general market action may in fact not be exactly representative of the general market action for the particular stock under consideration. Furthermore, there may be factors influencing the action of the particular stock under review other than pressure; for instance, a favorable earnings report at the time of the offering would tend to push the price of the particular stock upward and offset the pressure.

However, the important thing to note in comparing the figures in Table II is the relatively better performance of the stocks of companies which included assisting dealers' fees. This may be summarized by noting the difference in average pressure for each of the samples during the subscription period.

Thus the offerings with dealers' fees on the average showed a negative pressure of (0.38) per cent compared with a positive pressure of 1.47 per cent for those without assisting dealers' fees. This means that those with assisting dealers' fees did 1.85 per cent better in terms of the market price of the stock than those without dealers' fees.

IN making this comparison it is important that the sample of offerings with assisting dealers' fees be similar to those without, in respect to the various factors[4] which have a bearing on the amount of pressure. The sample in Table II may be subject to criticism on the grounds that it is impossible to isolate the effect on pressure of paying dealers' fees from all other factors which affect pressure. This is a justifiable criticism and it is not suggested that the 1.85 per cent in favor of paying dealers' fees is any exact measure of their advantage. However, it is felt that the sample is sufficiently good to indicate that there is an advantage. Furthermore, the issues with and without dealers' fees were

checked for all factors which cause pressure.

Considering all of the factors, the sample including assisting dealers' fees appeared to be subject on the average to forces which would have been expected to produce somewhat greater pressure than the sample without assisting dealers' fees. This tends to strengthen the figures showing the advantage gained by paying assisting dealers' fees.

Shares Processed by Dealers

ONE figure particularly stands out in connection with offerings on which dealers' fees were paid; that is, the proportion of the shares offered which actually passed through dealers' hands.

Of the twelve offerings in Table II which included dealers' fees, there was a wide variation as to the amount of shares that were processed through dealers but on the average it was 36 per cent of the entire

TABLE II

COMPARISON OF AVERAGE PRESSURE DURING SUBSCRIPTION PERIOD FOR OFFERINGS WITH ASSISTING DEALERS' FEES AND THOSE WITHOUT

	Date of Offering	†*Average Pressure During Period Rights Traded**
With Assisting Dealers' Fees		
Philadelphia Electric	6/28/54	3.55%
General Public Utilities	6/ 2/54	(0.59)
New England Electric System	6/25/53	0.47
General Public Utilities	6/24/53	0.50
Utah Power & Light	9/25/52	(2.12)
General Public Utilities	7/23/52	(3.62)
New England Electric System	5/26/52	(2.50)
General Public Utilities	7/ 9/51	(0.32)
Long Island Lighting	5/18/51	(1.43)
Oklahoma Gas & Electric	4/24/51	1.79
Consumers Power	10/19/50	(0.26)
Wisconsin Electric Power	4/14/49	(0.0)
Average		(0.38)%
Without Assisting Dealers' Fees		
Wisconsin Electric Power	5/20/54	1.92%
Northern States Power	5/ 4/54	2.89
Rochester Gas & Electric	6/12/53	0.91
Middle South Utilities	4/28/53	4.12
Long Island Lighting	10/ 9/52	(1.36)
Southern Company	7/10/52	(1.06)
Virginia Electric & Power	6/ 9/52	1.06
New York State Electric & Gas	8/ 2/51	0.46
Public Service of Colorado	6/28/51	1.84
Atlantic City Electric	5/28/51	1.53
Ohio Edison	10/30/50	(0.02)
Pennsylvania Power & Light	7/18/49	5.30
Average		1.47%
Extent of Better Performance for Offerings With Dealers' Fees Compared to Those Without		1.85%

( ) negative pressure.

†The average of the individual maximum pressures during the period the rights were traded was 1.06 per cent for the offerings with assisting dealers' fees, and 2.81 per cent without assisting dealers' fees, or a difference in favor of those offerings with assisting dealers' fees of 1.75 per cent.

*Represents a per cent of the market price the day before the rights were first traded.

issue. With this amount of stock passing through dealers' hands, it is worth while having them pulling for the company. Is it any wonder that the pressure pattern of these offerings was benefited by paying assisting dealers' fees?

Cost of Dealers' Fees

ASSUMING that there is an advantage in paying assisting dealers' fees, the next logical question is how much do they cost. The fees vary depending upon many factors. On the average the fee per share for the twelve offerings in Table II was 1.46 per cent of the subscription price. However, this does not represent what it actually cost the companies, because fees are paid only on that part of the issue processed by dealers and furthermore there is generally a limit as to how much will be paid on any one transaction. From the point of view of the cost to the company, the total amount of fees paid to dealers for the twelve issues in Table II represented only 0.56 per cent of the total amount of the proceeds of the offerings. Again there was considerable variation among the issues.

A cost on the average of only 0.56 per cent of the total amount of the offering is a small amount to pay for better performance of a stock during the subscription period.

Net Gain from Dealers' Fees

THE cost of 0.56 per cent can be compared with the figures summarized in Table II showing that the offerings with assisting dealers' fees did 1.85 per cent better in terms of market price than those offerings without dealers' fees. Thus, on the average there was a *net gain* of 1.29 per cent in terms of market price during the subscription period. This meant that the stockholders benefited through a better value for their rights. Or, to put it another way, the companies paying assisting dealers' fees could have set the subscription price higher so as to more than pay for the cost of the dealers' fees, and still have had the same rights value as those companies which did not pay assisting dealers' fees. This would result in more dollars to the company.

This can be best illustrated with a few simple figures. Let us assume that during a period when the general securities market is level, two offerings are made which are exactly similar in all respects except that one includes assisting dealers' fees and the other does not. Let us further assume that the market price of the stocks before the offering is $100 per share like our Company X previously used as an illustration in Table I, and that the subscription price for each is $90. Then on the basis of the effect of assisting dealers' fees as shown above the results of these two offerings can be summarized in Table III.

THUS the gain of $1.85 per share for the offering with assisting dealers' fees would go to the stockholders through a better value for their rights and it would cost the company 56 cents per share on the average for all shares, leaving an over-all net gain of $1.29. However, if the subscription price for the offering with dealers' fees were increased to $91.85 per share, this would mean the same rights value for the stockholders as for the offering without assisting dealers' fees. Then the added $1.85 per share could be used to pay the cost of the assisting dealers' fees of 56 cents per share, leaving a net gain to the company of $1.29 per share.

TABLE III

EXAMPLE OF GAIN PER SHARE REALIZED BY PAYING ASSISTING DEALERS' FEES

	Before The Offering	*Average during Subscription Period*		*Gain with Dealers' Fees*
		*Without Dealers' Fees**	*With Dealers' Fees†*	
Market Price	$100.00	$98.53	$100.38	
Subscription Price		90.00	90.00	
Difference		$ 8.53	$ 10.38	$1.85
Less Average Cost of Dealers' Fees				0.56#
Net Gain				$1.29

*From Table II showing that without assisting dealers' fees on the average the market price for the stock did 1.47 per cent worse than the general market.

†From Table II showing that with assisting dealers' fees on the average the market price for the stocks did (0.38) per cent better than the general market.

#From statement on page 624, that total fees paid to dealers for obtaining subscriptions in per cent of the total amount of the offering was 0.56 per cent on the average.

In considering the savings it is important to view the company and the stockholders as one and the same. After all, the stockholders are the real owners and in the long run whatever benefits the company also benefits the stockholders.

It has been suggested that even though paying dealers fees might benefit the value of the rights a company might not like to pay for the cost of the fees and account for them on their books. There may be some cases where such an objection may be justified but it would seem to be the exception rather than the rule if the management of the company is correctly viewing the stockholders and the company as one and the same.

Indirect Benefit

ABOVE and beyond this benefit during the subscription period, there is the possibility of the additional benefit of a better market performance for the company's stock after the subscription period because of the added dealer interest generated in the stock. The dealers are a very

important segment in the financial community and their good will is worth having, since, in many instances, they are the ones who recommend and induce people to purchase stock.

Some companies hesitate to list their securities on a stock exchange because it eliminates the interest of the dealers since the dealers are restricted in their spread on listed issues. This not only indicates the importance of dealers, but suggests that once a security is listed that the payment of fees to dealers in a rights offering is one way to keep up their interest in a stock.

Is it any wonder that companies which have used this relatively new technique have found it worth while? The significance of the net cash gain as well as the better long-run market performance for a stock resulting from paying assisting dealers' fees can be further illustrated by referring to comments of officials of four companies which have used this method.

H. L. Nichols, chairman of Southwestern Public Service Company, stated as follows:

> Our experience has been most gratifying and we feel that it is a thoroughly justified item of expense to the company. . . . We are thoroughly satisfied that in each offering of shares we have received higher subscriptions due to this dealer co-operation and it is furthermore quite likely that it has furnished an element of protection to our stockholders due to the fact that dealer representatives have unquestionably been more aggressive in assisting them to exercise their rights.[5]

H. A. Busch, vice president of General Public Utilities Corporation, commented as follows:

> Our experience indicates that about 80 per cent of our stock offerings are taken by individual stockholders with the balance by institutional investors. Because of the importance to us of the individual stockholders we feel that the co-operation of the dealers is most important in a rights offering. For this reason, we feel that it is very advantageous to our company to pay dealers a fee for obtaining subscriptions along with the other special techniques we have used in our rights offerings.[6]

George R. Corey, executive vice president of Utah Power & Light Company, made the following observation:

> . . . In previous offerings of stock to stockholders, we had observed that brokers here and elsewhere rendered assistance to stockholders which required some time and effort on their part. We thought it only fair . . . to make some provision for compensating them for such work. . . . Many brokers have expressed their appreciation and we feel that over-all the provision was helpful to the company.[7]

Allan G. Mitchell, of Philadelphia Electric Company, said of their recent common offering:

> The company management is well pleased with the results of the plan, with subscriptions from approximately 97 per cent of the shares offered, and is also pleased with the favorable dealer reception of the plan. From the company's standpoint the costs were modest, averaging 18.5 cents per share on all shares sold, and the amounts paid went largely

to dealers for services performed in assisting stockholders in exercising their rights.[8]

Need of Underwriter

DEALERS' fees can be used whether or not the issue is underwritten. Lessening the pressure during the offering period does not mean that the underwriter would be eliminated. Some pressure would be expected to exist; it varies under different conditions, and its extent is unpredictable. But what is more important, is that a general market decline cannot be foreseen. An underwriter is still the best form of insurance against a market break. The only way the underwriter can be eliminated is for the company to assume the risk of an unsuccessful issue or set the subscription price sufficiently low so as to preclude the market price from declining below the subscription price no matter how adverse conditions may develop. Whether or not a company follows such a policy depends upon its broad financial policy.

The extent to which the general market can decline during a subscription period can be seen in the Dow-Jones utility average. A study[9] was made of all of the 25-day periods (similar to an offering period), during the ten years, 1941-50. A decline of 5 per cent or more was experienced in 10 per cent of the periods. In other words, in 90 per cent of the cases the general utilities securities market would not decrease more than 5 per cent during a 25-day period. However, it should be noted that in one period in 1946 the break was as large as 19 per cent.

Thus whether or not to use an underwriter is a question quite apart from the matter of dealers' fees, and the underwriting fraternity should not feel that such a technique is any threat to their position. Some underwriters apparently prefer to run an offering entirely by themselves without any regular dealers' fee. Through the "Shields plan" of layoffs they feel that they can benefit the market price during the subscription period better than can be done through dealers' fees. Many of the offerings in Table II without dealers' fees included the right to layoff by underwriters and yet on the average those offerings did not do as well as those with dealers' fees. Furthermore, there have been offerings which included the "Shields plan" as well as dealers' fees so that they are not mutually exclusive.

Incorrect Approach on Part of Dealers

DEALERS are naturally eager for companies to adopt this technique in connection with a rights offering. In fact it

¶ "DEALERS' *fees can be used whether or not the issue is underwritten. Lessening the pressure during the offering period does not mean that the underwriter would be eliminated. Some pressure would be expected to exist; it varies under different conditions, and its extent is unpredictable. But what is more important, is that a general market decline cannot be foreseen. An underwriter is still the best form of insurance against a market break.*"

may be said that some have been overanxious. It is reported that some dealers have approached companies that expect to issue rights in a manner which has been termed "blackmail tactics." Dealers have in effect said that they would influence their customers to dump rights on the market if companies did not pay the dealers a fee. This makes it sound as though dealers were irresponsible in their relations with their customers, and such tactics will certainly not be very persuasive to win friends among officers of companies. Such an approach is obviously quite uncalled for. Fortunately this type of dealer is in the minority. It is unnecessary because there is a legitimate story to be told to company officials of the advantages of dealers' fees. Furthermore, some companies feel that they can do as good or better job themselves through simple warrants and follow-ups with their stockholders and therefore the dealers' fee would be an unnecessary added cost.

As previously stated, each offering must be viewed from all the surrounding circumstances and no set rules can be applied to all offerings. Dealers should not expect that this technique will be adopted in every offering. The management of a company should only be expected to adopt it if it is convinced that it will result in a benefit to the company and its stockholders.

Conclusion

IF a company should decide to use this technique there are obviously many more factors to consider than could possibly be touched on in this brief article, such as: (1) the importance of paying these fees to all members of the National Association of Security Dealers, (2) the need to have a special announcement notice sent to all members so that they will be ready to act at the start of the subscription period (dealers may miss it if it is just included in the prospectus), (3) the use of a dealer-manager to handle the operations, (4) whether to pay fees just on rights exercised by original stockholders or whether to pay fees on all warrants with a dealer's name on it, (5) getting SEC to permit members in the dealers' group to open special subscription accounts for customers to buy on 25 per cent margin.

In ending, it merely might be said, we hope that this article will be of some help in evaluating an interesting financial question.

Footnotes

[1] The National Association of Securities Dealers, Inc., is the most representative organization in the industry, in so far as dealing with the public in registered corporate securities is concerned. The current membership is slightly over 3,000, with registered representatives of about 35,000 and overall employment of 50,000 persons throughout the entire country.

[2] Companies which offered common stock with payment of a fee to dealers for obtaining subscriptions:

1949—Bangor Hydro-Electric, Columbia Gas System, New York State Electric & Gas, Southwestern Public Service, Wisconsin Electric Power.

1950—Central Telephone, Consumers Power, General Telephone, Lake Superior District Power, New England Gas & Electric Association, Oklahoma Gas & Electric, Southwestern Public Service, Western Light & Telephone, Wisconsin Power & Light, Commercial Credit, Cristina Mines Inc., Davison Chemical.

1951—Central Louisiana Electric, Central Telephone, Colorado Central Power, General Public Utilities, Lake Superior District Power, Long Island Lighting, New England Gas & Electric Association, Oklahoma Gas & Electric, Southern Colorado Power, Southwestern Public Service, Western Light & Telephone, Wisconsin Power & Light, Aluminum Ltd., Carr Consolidated Biscuit, General

Instrument, National Phoenix Industries, Railway & Light Securities.

1952—Black Hills Power & Light, Central Louisiana Electric, General Public Utilities, Kansas-Nebraska Natural Gas, Missouri Utilities, New England Electric System, Southwestern Public Service, Utah Power & Light, Western Light & Telephone, Wisconsin Power & Light, American Seal-Kap Corporation, Peerless Casualty Company.

1953—Arkansas Missouri Power, Bangor Hydro-Electric, Bridgeport Gas Light Company, Central Illinois Electric & Gas Company, Colorado Central Power, General Public Utilities, Hartford Electric Light Company, New England Electric System, New England Gas & Electric Association, Southwestern Public Service, Texas Eastern Production, Western Light & Telephone, Wisconsin Power & Light, Aluminum Ltd., American Fidelity & Casualty Company.

1954—through August 31st—Connecticut Light & Power Company, Eastern Utilities Associates, General Public Utilities Corporation, Kansas-Nebraska Natural Gas Company, Inc., Philadelphia Electric Company, Southwestern Public Service Company, Market Basket, Plastic Wire & Cable Corporation, New England Electric System (offered in September). As reported by the *Investment Dealers Digest*, and Ebasco Services Incorporated.

[3] This study should not be confused with the measurement of underpricing for purposes of determining the cost of obtaining common equity money for rate case purposes. Underpricing for that purpose must include all the elements such as pre-offering pressure, subscription period pressure, allowance for possible market break, allowance for rights value, underwriters' fees, and corporate expenses. Furthermore, a representative period covering average market conditions should be used in determining the quantitative allowance for each of the elements. The purpose of the study included in this article is merely to show the relative advantage of paying dealers' commissions. The period studied included favorable market conditions and thus the subscription period pressures shown are not what would normally be expected. Even witnesses who have opposed utility companies in rate cases have admitted a 10 per cent allowance for underpricing for rate case purposes, for a well-situated electric company. With average market conditions it would be expected that more than 10 per cent should be allowed.

[4] Factors which affect the extent of the pressure are: the condition of the market at the time of the offering; the amount of the offering; the ratio of the offering; the amount by which the subscription price is set below the market price; the quality and characteristics of the security; the yield and earnings-price ratio at the time of the offering; the method of offering such as whether it was underwritten and included a concession to dealers for laying off stock, whether it included oversubscription, etc.; the margin requirements at the time of the offering, the type of security holder, etc.

[5] From the *Investment Dealers Digest*, page 7, November 24, 1952.

[6] Information furnished for this article.

[7] From the *Investment Dealers Digest*, page 13, March 30, 1953.

[8] Information furnished for this article.

[9] "'Market Break' in Underpricing Utility Shares." By John F. Childs. April 12, 1951.

The American Tradition of Balance in Government

"AMERICA has traditionally been proud of its federal system of government. We have quoted 'E PLURIBUS UNUM,' talked of states' rights, identified ourselves as Texans or New Yorkers, and have rejoiced in our local autonomies. . . . We have viewed it as an important part of the American tradition of individualism. It has meant that more than individuals could participate in government, that government could be adapted to the needs of each area, and that political issues could be separated between the levels of government. Events of the last few decades, however, have vastly altered our traditional federal system. A series of congressional statutes and Supreme Court decisions have so increased the federal government's regulation of interstate commerce as to produce federal regulation of the largest parts of business activity. The federal government has greatly increased its direct operations."

—GEORGE C. S. BENSON,
President, Claremont's Men's College.

Trend from Lawyers to Laymen On State Commissions

Twenty-five years ago a writer in this publication noted (or thought he noted) a trend from lawyers to laymen on the state commissions. What has happened to this pattern during the intervening period? The author of this article, a specialist in administrative law, has recently made a careful survey based on questionnaires soliciting information about the business and professional background of all of our state commissioners. While the lawyer-to-layman trend first noted in this magazine in 1929 has advanced only moderately, other significant developments have occurred, including a trend towards businessmen.

By LINCOLN SMITH*

A QUARTER of a century ago a highly significant FORTNIGHTLY feature reported a trend from lawyers to laymen on state regulatory commissions.[1] The current study indicates that that phenomenon is now crystallizing into a pattern.[2] Although the ratio of lawyers on commissions has decreased only slightly in that interval, the 1954 survey indicates that the interpretative analysis projected twenty-five years ago was predicated on a causal and not a casual basis. The first article showed that seventy-nine out of 164 commissioners were members of the bar. At present, eighty-four out of a total of 182 commissioners, or their equivalents,[3] in the 48 states and territories are lawyers. Whereas 48 per cent of the commissioners were attorneys in 1929, the present canvass shows that men of the law have declined 2 per cent over the years to an average of 46 per cent.

An appropriate subtitle to this article would be: "The Trend from Lawyers to Businessmen on State Commissions." Law continues to be the dominant profession making up the commissions. But the significant fact is that *business backgrounds and experience* now take second place. Forty-five commissioners qualify under the head "general business." If banking, finance, and industrial pursuits are lumped into the business category, the total becomes fifty-five commissioners.

Another highly relevant consideration revealed by the present canvass is the large

*Visiting scholar, Columbia University. For additional personal note, see "Pages with the Editors."

number of commissioners who had engaged in "other government service" before their election or appointment as commissioners. The seventy-two commissioners who qualify under that heading represent a conservative approximation. There are several reasons for this. Undoubtedly the previous public service records of numerous commissioners were overlooked by spokesmen for several commissions. This has not always been caused by the popular but unjustified opprobrium to politics in this country, but probably more often to unfamiliarity with the details of long and varied professional and vocational records of a considerable number of commissioners.

Occasionally commission spokesmen have been unaware of modest but nevertheless significant contributions made by the top administrators, perhaps for short intervals, in government service before they went on the commissions. Maybe a term as selectman or mayor, or on the city council, or as borough president, or county attorney has been overlooked; perhaps it was deemed so incidental as to be unworthy of mention. Hence, it is extremely likely that more than seventy-two commissioners have been elected or appointed to political, administrative, or even judicial offices before they accepted commissionerships.

THE available records reveal that commissioners had served their government not only in high and responsible places, but also that many served in less spectacular but nevertheless essential posts at the grass roots. Here is a typical but not complete categorization of commissioners from "other government service": Congressman, Atomic Energy Commissioner, Securities and Exchange Commissioner, employees in State Department and Department of Interior, state representative, state senator, executive secretary to governor, justice of state supreme court, commissioner of food and drugs, deputy commissioner of welfare, state attorney general, bank examiner, public utilities commission staff, specialist in state department of agriculture, director of state farm loan department, hotel commissioner, county judge, county attorney, district judge, county home inspector for state board of control, chancery clerk, mayor, selectman, town attorney, and school attorney. Another was defeated narrowly for U. S. Senator and governor.

THIS wide range of activities shows that several commissioners had become specialists in regulation by their previous experience. Others were well trained and experienced in cognate fields. A great many, however, must be classified as "generalists," men who had won recognition as professional administrators, "men of affairs," or men with broad perspectives—sometimes in areas rather remote from the substance of public utility regulation.

This study helps to document the keen observation of Professor E. W. Clemens that "commissions reflect much of the political atmosphere and traditions of their states."[4] Conservative and liberal tendencies of particular states and regions are waived here; but the ecological, economic, and environmental fabrics which are unique to various regions have been transmuted into their regulatory agencies. Thus, farmers and ranchers contribute to the regulatory process in some agricultural and cattle-raising states—in a few this vo-

*Elected to office. †Appointed to office.	Number of Commrs.	Lawyers	Engineers	Journalists	Other Professions	Staff Members	Bankers and Finance	Gen. Business	Agricultural—Ranching	Industrial	Other Govt. Service
Alabama*	3			1				3		1	1
Arizona*	3	1			Athletics			1	1		1
Arkansas†	3	3							2		1
California†	5			1	{Teacher Publisher}			1			3
Colorado†	3	3	1								
Connecticut†	3				Statistician		1	2			3
Delaware†	3							3		1	
District of Columbia†	3	2									1
Florida*	3							3			2
Georgia*	5	3						1			5
Idaho†	3						1	1	1	1	1
Illinois†	5	5							1		2
Indiana†	3	3									3
Iowa*	3	1		1				2			2
Kansas†	3	3									2
Kentucky P. S. C.†	3	3									
Kentucky R. R. Com.*	3	2			Pharmacist						
Kentucky Dept. of Motor Trans.†	1					1					1
Louisiana*	3	2	1								1
Maine†	3	1						1			2
Maryland†	3	1				1		1			1
Massachusetts†	5	2						2			1
Michigan†	3	1	1					1			1
Minnesota*	3				{Teacher Mortician}			1	1		2
Mississippi*	3	1						1	2		2
Missouri†	5	4				1					1
Montana*	3	0	0	0							3
Nebraska*	3	2					1				1
Nevada†	3		2					1			
New Hampshire†	3	3									3
New Jersey†	3	2	1					1			1
New Mexico P. S. C.†	3							2		1	2
New Mex. Corp. Com.*	3							1		1	1
New York†	6	4			{Accountant}	1					4
North Carolina†	5	4			{Marketing Specialist}						1
North Dakota*	3								3		
Ohio†	3	3									2
Oklahoma*	3	1									2
Oregon†	1	1									
Pennsylvania†	5	4									3
Rhode Island†	4				Accountant		1	2			
South Carolina*	7							5	2		
South Dakota*	3	1			Pharmacist			1			
Tennessee*	3	3		1		1					3
Texas*	3	1	1					2			
Utah†	3	1						1			1
Vermont†	3	1							2		
Virginia*	3	3									
Washington†	3	3				2					1
West Virginia†	3	2									1
Wisconsin†	3	2				1		1			
Wyoming†	3						1	1	3		3
Hawaii†	5		2					3			
Puerto Rico†	3	2									1
Totals	182	84	9	4	11	8	5	45	18	5	72

cation numerically dominates the commissions. Likewise, it is not surprising that in the mining states men with degrees or experience in mining and mineral engineering have found their way to the public utility commissions.

IT is encouraging to be able to report that in 1954 there were eight state commissioners who were elevated to those posts from staff status on their own commissions. In this way recognition has been given in seven states (Washington state has promoted two staff members to commissionerships) to a very real need for specialized training and experience in the subject matter of utility regulation as a basic requirement for commissionerships. Nonpolitical—or better, apolitical—staff members have been encouraged with a fluidity to positions at the top policy level in regulation, thereby promoting a career service in the field of regulatory administration. It is probably not entirely coincidental that in seven of the eight cases the promotions were made in states where commissioners are appointed. And without casting any intended aspersions on the *proficiency* of regulation in the states not specifically mentioned, it is noted that half of these promotions were made in New York, Wisconsin, and Washington state—jurisdictions which historically have made many noteworthy contributions to the philosophy and practice of public regulation. And Illinois filled one top post with a former assistant commissioner. The cases of two more commissioners should be added to the embryonic career service in regulatory administration. A commissioner in New Hampshire was formerly a utilities commissioner in another state; and the chairman of the Maine commission previously established a brilliant career as commissioner on two federal agencies.

By way of comparison the study made twenty-five years ago by Francis X. Welch did not bring to light *any* cases where commissioners emerged from staff positions. Writing in 1953, Professor Dimock noted: "Apparently it is no coincidence that few commissioners have come up from the ranks after learning the technicalities of their trade on the staff of the commission itself. And yet there can be no question that if a career service is needed anywhere it is in the regulatory field."[5] It is true, of course, that the 1954 survey found that less than 5 per cent of the commissioners have risen from the ranks. But other factual data strengthen the present writer's reflective hunch and considered opinion that a respectable percentage of commissioners qualify as professional regulators in utility administration.

THERE are well-known cases wherein state commissioners have served consecutively for ten, eleven, thirteen, sixteen, eighteen, and twenty-four years, and many of these are still going strong. There is, to be sure, a large proportion of commissioners who are not re-elected or reappointed according to the fortunes of politics.[6] Yet, there is evidence that both electorates and appointing authorities, independently and jointly, insist upon returning to office commissioners whose main professional interest has been in the arena of utility regulation. Not only does the opportunity for a career seem to be expanding horizontally throughout the states, but there seems to be a growing tendency in the national government to

Changing Function of the Commissions

"In attempting to account for the decline of lawyers and engineers on state public utility comissions, certain fundamental changes in the theory and practice of regulatory administration which have pervaded state commissions in the last quarter of a century should be summarized. At the risk of oversimplification, two interrelated and interdependent phenomena seem to tell much of the story —additional functions delegated to the commissions, and increases in staff assistance."

recruit some of its commissioners from states whose top administrators have made salient contributions at the state level.[7] While the vertical integration of regulation from state to national commissions is still only a trickle, the increase in that trend must be recognized. In addition, federal officials in recent years have been more favorably inclined to pick a few of their commissioners from staffs in the same or closely allied fields.

The Welch study discovered that for commissionerships there were also "thirteen engineers, five former journalists, four other professional men, and twenty-nine former businessmen, including bankers, seventeen former farmers, nine former industrial workmen, and nine formerly engaged in other government service." [8] He also pointed out that lawyer commissioners predominated in the more populous states, while commissioners from other walks of life were more popular in the less densely populated states. Coextensive with these facts was the conclusion that in states where commissioners were elected, lawyers were less likely to receive commissionerships from the voters than they were in states which adhered to the appointment process. In 1929, these state commissions consisted of all lawyers: Oklahoma, Ohio, Virginia, Pennsylvania, and Tennessee; Massachusetts, California, New York, and Illinois were then partial to a large number of lawyer commissioners. On the other hand, Florida, Iowa, Kentucky, Mississippi, Montana, Nevada, North Dakota, and Oregon had no lawyers at top posts on their commissions.

The current Fortnightly survey reveals a decline in engineers, journalists, industrial workers, and farmers on

state commissions. This decline may be sharper than mere figures indicate, inasmuch as several present commissioners who have been placed in these categories belong in them only incidentally.

As of this year, 1954, members of the bar now hold all the seats on the following commissions: Arkansas, Colorado, Illinois, Indiana, Kansas, Kentucky Public Service Commission, New Hampshire, Ohio, Oregon, Tennessee, Virginia, and Washington state. In the following ten states the legal profession dominates the commissions numerically: Georgia, Louisiana, Missouri, Nebraska, New Jersey, New York, North Carolina, Pennsylvania, West Virginia, and Wisconsin. On the other hand, the following commissions have no lawyers in top posts: Alabama, California, Connecticut, Delaware, Florida, Idaho, Minnesota, Nevada, New Mexico, North Dakota, Rhode Island, South Carolina, Wyoming, and Hawaii.

Except for Tennessee and Virginia, where commissioners are elected, all other commissions which consist entirely of lawyers are in states which adhere to the appointment process for commissioners. And in the ten states where lawyers have a majority on the commissions, seven use the appointment system and only three resort to popular election. But the hypothesis that the appointment of commissioners is more favorable to attorneys than the election of commissioners is dented when it is noted that of the 15 commissions without lawyer commissioners, only six resort to popular election. Thus, nine commissions whose members are appointed now have no attorneys thereon. The situation is further confused by an analysis of the situation in Kentucky and New Mexico. Each state uses both systems for its three commissions and two commissions, respectively. In New Mexico neither the appointment nor election of commissioners has produced a lawyer. In Kentucky, on the other hand, both the election and appointment processes have yielded a considerable number of lawyer commissioners. While there does seem to be a slight tendency for the appointment of commissioners to elevate attorneys to the posts, it may be merely coincidental. Additional data and corrective analysis over the years will be essential before the hypothesis can withstand any reliable test and before any homologies can be established.

Perhaps it is more appropriate to observe that certain states, regardless of the means by which commissioners are selected, adhere rather rigorously to a tradition favorable to lawyer commissioners, while other states favor laymen. In these states the atmosphere seems favorable to lawyer commissioners: Illinois, New York, North Carolina, Ohio, Pennsylvania, Virginia, Tennessee, and Washington. In a few states the tradition for lawyers on the commission seems to have gone into an eclipse—California, Maine, and Massachusetts, for example. In California, where the appointment of commissioners is the sole responsibility of the chief executive, it would be significant to know the rationale underlying the decision of Governor Warren, before he became Chief Justice of the United States Supreme Court, not to require any members of the bar on that state regulatory agency.

In attempting to account for the decline of lawyers and engineers on state public utility commissions, certain funda-

mental changes in the theory and practice of regulatory administration which have pervaded state commissions in the last quarter of a century should be summarized. At the risk of oversimplification, two interrelated and interdependent phenomena seem to tell much of the story—additional functions delegated to the commissions, and increases in staff assistance.

TECHNOLOGICAL progress, higher standards of living, and complex local economies caused state legislatures to expand the regulatory ambit over wider areas. Railroad commissions or their successors were given more widespread jurisdiction over light, power, water, telephone, and gas companies, motor transport, rural electric co-operatives, and even occasional nonutilities. The California Railroad Commission became the California Public Utilities Commission by constitutional amendment. In Kentucky and New Mexico, where the original regulatory commissions are constitutional agencies, the legislatures, in 1934 and 1941, respectively, created statutory commissions to assume jurisdiction over newer utility services not covered by the constitutions. In fact, Kentucky now supports three separate commissions. The Florida commission is a more recent case example where expanded jurisdiction over hitherto unregulated activities helped to make regulation more effective in that state. Its railroad commission became the Florida Railroad and Public Utilities Commission in 1947; its jurisdiction was extended in 1951 to all privately owned gas and electric companies. For many years all states except Delaware supported a regulatory commission. In 1949 Delaware established a public service commission.

IN many states there were few experts in utility regulation eligible for membership on commissions. Inasmuch as specialized technical assistance was essential, not only were states required to enlarge commission staffs but they found it expedient to recruit professional experts to provide all the technical assistance. Twenty-five years ago many state agencies were forced to operate with extremely small staffs. Hence a lawyer or an engineer at the top level would obviate the necessity of employing one on the staff. Lawyers and engineers are undoubtedly more necessary than ever on commissions today; but the general rule has been to develop such assistance at the staff level. Hence their functions have been utilized in a technical or semitechnical and ancillary way below the administrative policy-making level. The

¶ "IT *is a great American tradition that the amateur will have to prove himself worthy before he can join the professional ranks. 'Ready-made' commissioners are rare. There is no other alternative than to look to the states as a training ground if regulatory administration is to emerge as a distinct profession in itself. The best one can do is to exhort political leaders in the states to insist upon a good balance between ability to regulate and political acceptability in the election or appointment of public utility commissioners.*"

reason why the legal profession is more numerous than any other on the commissions is undoubtedly that the study of law has a broadening influence and creates a perspective and versatility which enables the lawyer commissioner to acquire a working knowledge of the substance of regulation more quickly than men in many other professions.

THE rapid increase of businessmen on state commissions seems to be a major feature of this inquiry. Hence, analysis is appropriate. Professor Clemens, not long ago, wrote this regarding businessmen as commissioners:

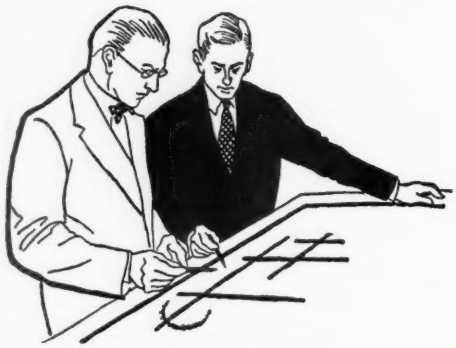
> Business training is so antithetical to the judicial and administrative atmosphere in which regulation takes place that businessmen find it hard to adjust themselves. All too often they are confused by a type of experience completely foreign to them as they assume a dogmatic prescience born of their past successes in the business world. On the other hand some excellent commissioners have been businessmen of the highest type who have been moved to accept appointment at a financial sacrifice because of their desire for public service.[9]

But a great many businessmen seem to have made the necessary adjustments by now. And the regulatory commissions in a considerable number of states, particularly some of the smaller and rural ones, appear to this writer to operate in a less legalistic atmosphere than they used to. It should be noted that with very few exceptions the commissions are charged with the regulation of particular segments of the economy. The economic aspects of this regulation certainly are in the ascendancy. In the final analysis, commissions are required to make value judgments and policy decisions which relate to government and business, and to economic, fiscal, and industrial controls. On this basis it is inevitable that business talents are being called upon to contribute to successful regulatory administration within the law.

IN his research work on regulatory administration, the author has been able to obtain the views of several practitioners in the field. Out of several excellent monographs, an incisive one from Ingram B. Pickett, chairman of the New Mexico Corporation Commission, is illustrative of the trend towards businessmen commissioners. Here is what he wrote about the desirable qualifications for a commissioner:[10]

1. Integrity and sincerity by past record.
2. Genuine interest in serving the people by whom elected.
3. Courage of his convictions.
4. Perseverance.
5. Ten or more years in the business field.
6. Open-minded and not opinionated.
7. Knowledge of economics.
8. Sound and good judgment.

Most commissions are made up of attorneys and engineers in utility work which may be desirable in theory, but I have not found it to be altogether desirable in practice. It is my opinion that a good, sound businessman with administrative ability and a desire to be fully informed on utility regulations makes a better commissioner than one limited to legal thinking.



The Rôle of the Commission Expert

"In many states there were few experts in utility regulation eligible for membership on commissions. Inasmuch as specialized technical assistance was essential, not only were states required to enlarge commission staffs but they found it expedient to recruit professional experts to provide all the technical assistance."

It is unnecessary for a commissioner to have a great deal of experience in the utility field provided he has experienced and qualified department heads. A commissioner does not have the time nor should he be expected to handle the details of his office. A person with good common sense and administrative ability, in my opinion, makes the best commissioner.

These opinions of Chairman Pickett are entitled to great weight. The present author is entirely in agreement with the commissioner's last-quoted paragraph. That could be interpreted as a plea for commissioners with keen perceptives and administrative talents, the "generalists" as opposed to technical specialists.[11] Men possess these abilities in part innately, if not intuitively; though previous experience, to be sure, can be a help. The point is, however, that no single profession has any monopoly on such talents.[12] Many years ago, for example, a cleric had the reputation of being the best commissioner in one region of the United States. There is always, however, a rebuttable presumption that a commissioner whose previous training and experience have a direct bearing on several phases of the subject matter concerned will fare better in his performance on the job than a conscientious commissioner who comes in "from the cold" with little more to offer than enthusiasm and a willingness to learn.

Space here precludes reference to any analysis whether the states have succeeded in recruiting "good" commissioners who were previously "successful" in their respective professions and vocations. Some mediocre commissioners and a few political sinecures would have to be expected in a group of 182 public officials, none of whom are required to meet any academic

norm to attain commissionerships. The simple fact remains, however, that the 182 men and women under consideration have all met the test of political acceptability in their home jurisdictions, and they are responsible in their public positions to the electorates or the direct representatives thereof. That, after all, is the quintessence of free government.

As might be expected, ample evidence supports the conclusion that the national government enlists somewhat better-qualified commissions than the great majority of the states.[13] Nevertheless by training and experience an important sector of state regulators are professionals whose major lifework has been devoted to commissions. A great many more are amateurs. But it is encouraging that some of these are men of promise. It is a great American tradition that the amateur will have to prove himself worthy before he can join the professional ranks. "Ready-made" commissioners are rare. There is no other alternative than to look to the states as a training ground if regulatory administration is to emerge as a distinct profession in itself. The best one can do is to exhort political leaders in the states to insist upon a good balance between ability to regulate and political acceptability in the election or appointment of public utility commissioners. In a forthcoming article, the particular problems and specialized background of federal regulatory commissions will be given separate analysis.

Footnotes

[1] "The Trend from Lawyers to Laymen as Commissioners," by Francis X. Welch, PUBLIC UTILITIES FORTNIGHTLY, December 26, 1929, pp. 801-807.

[2] The editors of the FORTNIGHTLY sent out a questionnaire to all commissions in February, 1954. Additional data were obtained by consulting commission reports when necessary. In a few cases this was supplemented by information furnished the writer by academic colleagues in the respective states.

[3] In Rhode Island major responsibility for regulation is vested in a single public utility administrator in the department of business regulation. There is, however, a part-time hearing board for public utilities. The three members of this board are independent of the department—hear *de novo*—and can approve, disapprove, or modify the department findings upon appeal from decisions.

[4] *Economics and Public Utilities* by E. W. Clemens (New York, 1950), p. 419.

[5] *Business and Government* by Marshall E. Dimock (New York, 1953), pp. 469-470.

[6] "Long tenure is deadly unless the commission can be assured of good men to begin with, and under present conditions that assurance is all too rare." *Ibid.*, p. 470.

[7] "Professional Qualifications of Federal Regulatory Commissioners," Parts I and II, by Lincoln Smith (to be published in forthcoming issues of PUBLIC UTILITIES FORTNIGHTLY).

[8] One difference in methodology between the 1929 and 1954 surveys should be noted. On the first occasion the previous occupation of each commissioner was ascertained, and each was placed in a single category. The present study sought not only the previous occupation but also the predominant vocation of the commissioners. Probably the major difference between these two bases is that spokesmen for commissions in 1954 had an opportunity to report not only the commissioners' professional background but also to record other sporadic activities. Hence, because of some duplication, the accompanying table sometimes indicates more backgrounds than there are commissioners.

[9] Clemens, *op. cit.*, p. 406. Professor Gellhorn has written in much the same vein of thought concerning the "practical" man as administrator. *The Termination Report of the National War Labor Board.* Industrial Disputes and Wage Stabilization in Wartime, by Walter Gellhorn, Vol. 1, p. 622 (1945).

[10] Quoted by permission of Chairman Pickett.

[11] "The administrator . . . is often spoken of as a 'generalist.' Indeed, there is an ancient witticism which says that an administrator is a person who gets to know less and less about more and more until eventually he arrives at that happy state where he knows nothing about everything. Like most proverbs of this sort, it has just enough truth in it to make a person feel uncomfortable." *Management in the Public Service* by John D. Millett (New York, 1954), p. 41.

[12] The records show that several commissioners were trained and/or experienced in more than one major discipline, such as law and engineering, law and business, law and journalism, law and agriculture, and banking and agriculture.

[13] Note 7, *supra;* also, "Professional Qualifications of Federal Regulatory Commissioners," Part II, in *Ibid.*

It Doesn't Make Sense!

While the employee accident rate in the electric utility industry has constantly improved since 1947, the rate of improvement has shown signs of lagging behind comparative progress of other industries. Here are some suggestions for self-examination by utility executives on the subject of insuring more constant and careful supervision of accident prevention.

By C. B. BOULET*

THE cost of industrial accidents in the electric industry in death and suffering, as well as financially, is creating a growing concern among utility executives. And well it might!

Back in 1944 the industry boasted an average frequency of 12.52 disabling injuries for each million hours worked by its employees. At that time the average frequency for all types of industry was 14.46 disabling injuries per million hours worked. During the years immediately following the war an unusual phenomenon occurred. The electric industry frequency rate soared in 1946 to 14.81 and in 1947 to 15.41, while the average rate for all industry for those two years dropped to 14.16 in 1946 and 13.26 in 1947. In other words, while the accident rate for all industry went down, the rate for the electric industry went up.

While the accident situation in the electric industry has constantly improved since 1947, and in 1953 shows a rate of 9.43 accidents per million hours worked, the lag of this industry compared to all in-

*Personnel director, Wisconsin Public Service Corporation. For additional personal note, see "Pages with the Editors."

dustries has never been overcome. The position held in 1944 with a frequency rate below the average of industry in general has reverted to a situation where the accident rate of all industry is substantially lower than that of the electric light and power group. The average frequency for all industry in 1953 was 7.44 accidents per million hours.

In other words, since 1944 the average rate for all industries has improved by approximately 50 per cent, while the electric industry has managed a reduction of only 25 per cent during that same period.

These are not the only facts that don't make sense.

A recent study shows that in 1953, of 48 electric companies having between 1,000 and 2,000 employees, 14 had frequencies of less than five while nine companies show records of over three times that figure.

In the group of companies of less than 500 employees 42 had perfect records but 44 had records showing that employees in those companies were sustaining over 25 accidents for each million hours worked.

It just doesn't make sense!

NOR is this bewildering situation confined to smaller utilities. Large electric companies show similar inexplainable variations.

For instance, in companies with over 2,000 employees 16 out of a total of 48, or one-third of the companies reporting, show frequencies of less than five disabling injuries for each million hours of work while nine produce records three times as severe, with 15 or more disabling injuries for each million hours worked.

Obviously, it doesn't make any sense. Only one thing is certain. These high-frequency companies are primarily responsible for the unfavorable showing of the industry compared to the all-industry average. Just in case some gas utility executives may be preparing to send condolences to their electric friends, it should be put into the record that the gas industry picture is no better than, if as good as, that of its electric cousin!

The seriousness of the employee accident picture in the public utility industry is sobering. Realization that included in the injury picture for the industry in 1953 are 133 employee accidents which resulted in death, plus many, many more which caused partial permanent disability, should focus attention on the question, "What can be done about it?"

The accident prevention committee of the Edison Electric Institute has been straining every muscle to better this record. Techniques have been developed, programs outlined, meetings held with engineering and other operating groups—all directed toward the elimination of the suffering and waste of human assets that go hand in hand with accidents. The attention of executives of the industry has been called forcibly to the unfavorable record. The board of directors of the Edison Electric Institute has given special attention to the problem.

THIS picture of wide variation in accident incidence from virtually no accidents year after year for some companies to maximums of 20, 25, or 30 serious injuries for every million hours worked in other companies, is still more astounding when consideration is given to but two factors. First, the exposure to hazard is virtually the same in all companies, and second the techniques of preventing accidents

as well as standard protective equipment are available to all companies. In fact, the techniques recognized as basic are actually in effect in practically every electric utility.

Why then this wide variation in accident frequency?

Why can one company go year after year without any of its employees getting seriously hurt while others have a rate which is several times in excess of the industry average.

What is the "priceless ingredient" that makes a successful accident prevention program?

A critical analysis of some of the companies with outstanding records points up several rather definite facts that appear to have a bearing on the accident rate. Sincere consideration of these facts by executives of the companies with bad records should do much to improve their record and at the same time remove the stigma of high employee accident frequency from the industry as a whole.

It is axiomatic that in those companies where a good record is the rule, the chief executive takes a personal interest and gives personal leadership to the effort to prevent employee injuries. While every chief executive will insist that he is interested in this problem, it is doubtful if more than a few could score a passing grade on the following self-examination:

1. How many letters have I written to supervisors during the past year to either commend them for a good accident record or reprimand them for a poor record?

2. How many times have I asked for a detailed report covering a disabling injury with recommendations for prevention of a recurrence of a similar accident?

3. How many safety meetings have I attended?

4. How many articles regarding accident prevention have appeared over my name in company publications?

5. How much space was given to employee safety in the annual report to stockholders?

6. Have I determined whether the present safety program was adequate as to coverage, personnel, and administration?

7. Have I given attention to the prevention of accidents comparable to the attention I have given to financial matters, sales, physical facilities, public relations, etc?

8. Have I taken a serious and sincere personal interest in employee safety and shown that interest by my action?

9. Do I know my company's accident frequency rate for the year to date? Last year?

10. Do I know what accidents cost my company last year?

Any organization will attempt to reach the objectives set by its chief executive. If he insists on good public relations, he will very likely get good public rela-

¶ "The *seriousness of the employee accident picture in the public utility industry is sobering. Realization that included in the injury picture for the industry in 1953 are 133 employee accidents which resulted in death, plus many, many more which caused partial permanent disability, should focus attention on the question, 'What can be done about it?'*"

tions. If he demands gold-plated service to customers, he'll get that. If he harps on economy, his staff of executives and supervisors will strive for that objective. And if he wants a safe operation, he will get in all likelihood a safe operation. On the other hand, he won't get what he doesn't demand. His entire organization responds to his wishes and his leadership. Without a positive dynamic leadership in the field of accident prevention by the chief executive, there simply will be no response from his organization.

So the first requirement of an effective program in this field as in any other is active not passive interest and direction by the top man. Evidence of such interest will produce a "desire to do" and a pride in doing that which the boss wants through the entire organization.

Too many safety engineers have been just that. They have labored under the erroneous impression that safety can be engineered—forgetting the human factor. They have attempted through safety rules, guards on machines, and protective devices to solve a problem that is 90 per cent a human problem. They have failed to realize that you simply cannot engineer safety. And that brings us to the second important fact that must be recognized if any accident prevention program is to succeed.

A COMMUNIST will reject any effort to convince him that the free enterprise system is good. A Democrat will not accept the philosophy of the Republican party, nor will the Republican accept that of the Democratic party. A Texan can see nothing good in "foreigners" from other states, but he is all ears if anyone says something good about Texas. Why?

It is all a matter of attitude, and these attitudes are created by impressions from many sources. Training, association, past experience all create and fix these personal attitudes.

The attitude of any individual causes him to reject certain philosophies and accept others. His attitude makes him turn a deaf ear to some pleadings but to open his ears to other requests.

CERTAIN it is that if any individual or group of individuals has a negative attitude and antagonism toward an organization or its leadership, they will have no part of any program of that organization or of its leaders.

This holds true for any employee activity. It is doubly true of any program that affects the individual employee. So long as distrust, suspicion, or enmity exists in the group it will buy no part of anything that management wants to sell.

It is fundamental that to get full cooperation there first must be a receptive attitude. That attitude is created by those conditions which surround the individual's work life. It is the result of over-all company policies, the type of treatment given employees and the relationship between supervisor and worker.

Examination of all company policies to determine their fairness to all employees and all groups must go hand in hand with plans to prevent accidents. Odd as it may seem, men resent even efforts to protect them if these efforts are made in a negative atmosphere, but accept them if the atmosphere is favorable.

It is the old story of team activity. The same team will win or lose depending on the attitude of the individual players. Lack of confidence, internal friction, doubt of leadership will result in defeat after defeat

The Negative Employee Attitude

"CERTAIN it is that if any individual or group of individuals has a negative attitude and antagonism toward an organization or its leadership, they will have no part of any program of that organization or of its leaders. This holds true for any employee activity. It is doubly true of any program that affects the individual employee. So long as distrust, suspicion, or enmity exists in the group it will buy no part of anything that management wants to sell."

where confidence and an "up and at 'em" attitude will make a winner of a team that is studded with mediocre players.

THE development of a favorable attitude among employees rests to a large degree on the day-to-day relationship between individuals and their immediate supervisors. There are supervisors for whom men will do the impossible and there are others who get nothing but abuse from their men—figuratively a shot in the back. It would seem, therefore, that the next point of attack in solving the problem of high accident frequencies rests in the selection and training of supervisors. The day when the big boss can say, "Well, foreman John retires tomorrow, Pete, you're next in line, you take over," is past.

Realization must come that the best worker or the worker with the most years of service will not of necessity make the best foreman. The qualifications necessary to lead men, to get co-operation and team play are not the same qualifications that make a man stick to one company for a quarter of a century or make him a conscientious and careful worker.

SUPERVISORS must be selected for the job of supervision. Knowledge of what makes men tick emotionally is just as important as knowledge of the technical aspects of the job. The technique of leader-

ship—of getting men to want to produce—of creating a smooth-running team—are more important than the technical abilities required to connect a transformer or phase in a generator.

Given good material in a supervisory position, a planned training program can furnish much of the knowledge necessary to carry out the function of leadership.

MEN are not born with the knowledge of how to get along with people or how to manage others. Training is necessary to develop in the leader a superior knowledge and understanding of employee objectives, needs, desires, and reactions. The supervisor must be taught the fine points of effective methods of handling grievances and settling them in a satisfactory manner. He must learn when and how to criticize or to reprimand. He must know the art of giving praise without flattery. He must understand how to make each man feel that he personally is an important part of the team and to create in each employee of the organization a will to reach objectives which the supervisor sets. He must acquire the techniques of communication—the know-how of giving information in an effective way and of receiving information that is vital to his operations.

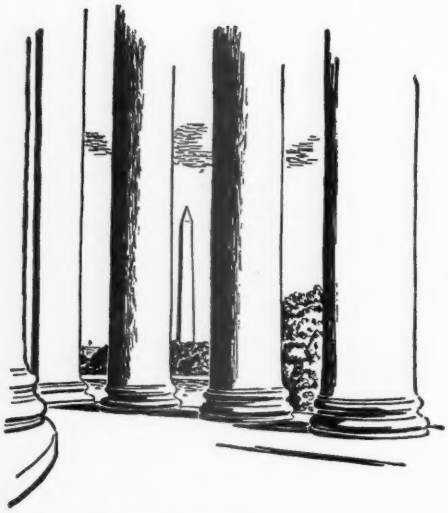
Only through planned training can this kind of leadership be developed and only with this kind of leadership will a favorable and receptive attitude be created. There is no substitute or magic formula that can replace the day-to-day relationship between the boss and his men.

NOTHING has been said in this article regarding the technical aspects of accident prevention.

Certainly any program must include all the safety devices that are recognized as necessary adjuncts to good operations—line hose, insulator boards, rubber gloves, sleeves, grounding equipment, hold cards, hot line tools, hard hats, and many other items are in the category of basic essentials to the protection of employees. They must be used. It is not the purpose of this presentation to discuss these technical aspects of safety engineering. It has long been proven that these physical devices in themselves cannot give adequate protection against the hazards incident to electric utility operations. Over and above these devices must be spread the human factor—the missing link—the priceless ingredient of human understanding through which is developed co-operation, receptive attitudes, and *esprit de corps*. This human understanding is the leavening which must be present if the accident experience in the electric utility industry is to improve.

"IT has been the history of electricity that its conveniences and work-saving characteristics are so great that, in good years and bad, there has been a constantly increasing demand for it in the home and factory and on the farm. All the evidence, at this date, points to a continuing increase in the use of electricity for many years to come."

—EXCERPT *from 1953 annual report, Union Electric Company of Missouri.*



Washington and the Utilities

Tribute to Edison

PRESIDENT Dwight D. Eisenhower led the nation in paying tribute to the memory of Thomas A. Edison on the seventy-fifth anniversary of the discovery of the incandescent electric light. Because of the pressure of the President's duties, his appearance on the program of the Diamond Jubilee of Light was recorded on film in advance of the ceremony broadcast from Hollywood, California, on October 24th. Actually, the discovery of the light bulb filament is historically recorded as October 21, 1879, following long and arduous experiments by the inventor at his laboratory at Menlo Park in New Jersey.

Some 300 electric utility companies and organizations of the electric industry participated in the celebration, which was simultaneously conducted in more than 1,200 cities and towns throughout the United States. A large cast of Hollywood stars was assembled by David O. Selznick, producer of the 2-hour, 4-network television program, entitled "Diamond Jubilee of Light," including such outstanding personalities of the stage and screen as Walter Brennan, Joseph Cotten, Dorothy Dandridge, Brandon de Wilde, Eddie Fisher, George Gobel, Helen Hayes, Guy Madison, Thomas Mitchell, David Niven, and Kim Novak.

The Diamond Jubilee Committee, an all-industry body, was headed by Charles E. Wilson, former president of General Electric.

The celebration lasted three days in all, following the actual anniversary on October 21st, so that the national television broadcast feature would not interfere with local jubilee celebrations. Thousands of jubilee luncheons and dinners were held on the actual seventy-fifth birthday of the electric bulb. Gwilym A. Price, president of Westinghouse, spoke at a jubilee luncheon in Chicago. Charles McConnaughey, chairman of the Federal Communications Commission, was the jubilee speaker at a civic banquet at Nela Park, Cleveland. James H. Jewell, president of the National Electrical Manufacturers Association, spoke at a jubilee banquet in New Orleans. A Los Angeles jubilee luncheon heard Sylvester Weaver, president of the National Broadcasting Company.

At least twelve new electric plants were dedicated, literally from Maine to Califor-

nia. At Veazie, Maine, the Bangor Hydro-Electric Company inaugurated its new plant, while at Pittsburg, California, the Pacific Gas and Electric Company was the celebrant. At St. Louis a new lighting system for the well-known Milles Fountain was dedicated, while at Ft. Myers, Florida, the Edison winter home was kept open for a week of public inspection and reverence. In the High Sierras of California a power reservoir was named "Lake Thomas A. Edison."

The New Court Term

DURING the first two weeks of its October term, the U. S. Supreme Court boiled down a heavy docket of hundreds of appeals filed since its recess last June. Comparatively speaking, however, it looked as if there would not be very many momentous cases decided of special interest to public utilities. But this is only a case of first impression, based on the annual fall cleaning of the filing docket in which the great majority of petitions for review are denied. It is quite likely—indeed quite probable—that more important utility cases will be filed for review or certiorari during the coming term, some of which are now in the lower courts or about to be decided by the highest state courts.

Of more than 300 petitions disposed of during the first week, only one positive petition for review of a case involving a public utility company was granted. This was an appeal by the Securities and Exchange Commission from a lower court ruling to the effect that the Securities and Exchange Commission has no jurisdiction over a public utility company's payment to financial advisers for services rendered during a subsidiary's reorganization. The respondent in this case was Drexel & Co.

There were some noteworthy negative rulings, however, among the large number of petitions and appeals on which the court denied further review. Most important, from the standpoint of general interest in regulatory circles, was the expected action of the court in denying a petition for rehearing in the controversial Phillips Petroleum Company Case. This action of the court leaves intact its celebrated decision of June 7, 1954, requiring the Federal Power Commission to take jurisdiction over independent natural gas producers on the theory that they are "natural gas companies" as defined by the Natural Gas Act of 1938 (3 PUR3d 129).

The refusal of the court to reopen this case caused no surprise, in view of the positive position taken by the majority in the original 5-to-3 decision. The final action of the court in denying the petition for rehearing does, however, clear away the last procedural formality, and will probably open the door to a renewal of the demands of Congressmen from producer states for legislative amendment of the Natural Gas Act in the next session of Congress.

In another gas case the court refused to review an appeal taken by the Colorado Interstate Gas Company on grounds that the amount of return allowed by the FPC on a rate increase petition was unfair.

AN interesting electric rate case involving two utility companies—the electric utility and one of its largest customers, the local transit company in the District of Columbia—was denied further review upon petition of both parties. The two utilities taking crossappeals from the decision of the court of appeals for the District of Columbia circuit were the Potomac Electric Power Company and the Capital Transit Company.

The lower court had ordered the District of Columbia commission to consider

the rate increase on the basis of allocating expenses, revenues, etc., between the District of Columbia and neighboring Maryland service areas instead of on a system-wide basis. The electric company appealed on grounds that the District of Columbia commission's original system-wide rate increase was proper. The transit company appealed on the grounds that the lower court should have set the increase aside entirely instead of sending it back for further proceedings on allocation. Both appeals were denied a review last month. The commission was expected to proceed with its review of the 1951 order on the basis of territorial allocation.

In several other cases involving rulings of the Securities and Exchange Commission, the court denied further review. One of these (Johnson *v.* Securities and Exchange Commission) refused intact a lower court ruling that a committee of stockholders is not entitled to a larger compensation for its professional advisers than the amount allowed by the SEC.

In two other dissolution cases under the Holding Company Act, the respective holding companies lost their attempts to collect legal expenses from subsidiaries which they helped to reorganize. In a brief order, the U. S. Supreme Court left standing two lower court decisions upholding SEC rulings against the United Corporation (United Corp. *v.* Securities and Exchange Commission) and the Standard Gas & Electric Company (Standard Gas & Electric Co. *v.* Securities and Exchange Commission).

REA Developments

THE Rural Electrification Administration has under study a plan which may result in loans up to $40,000,000 to four "super co-ops" in the Colorado-Nebraska-Wyoming area. The loans would be for steam-generating facilities designed to meet the shortage of hydroelectric power in the area. The four "super co-ops" involved are Tri-State Generation and Transmission Association, Colorado-Ute Electric Association, Tri-County Electric Association (Wyoming), and a group of southeastern Colorado power distribution co-ops which would be joined to form a single agency.

"Without question, the area needs help," REA Administrator Nelsen said in discussing the proposal. He noted that Tri-State is now entirely dependent on hydroelectric power. "With the western water situation what it is," Nelsen said, "it is more and more apparent that other power sources will be needed."

INFORMATION on nuclear power generation will be given to REA co-ops as soon as available. This was the outcome of a meeting last month between Atomic Energy Commission officials and an advisory committee of REA. The meeting was arranged by REA after several co-ops had expressed an interest in producing atomic power. The Plains Electric Generation & Transmission Co-operative at Albuquerque-Algadones, New Mexico, already has filed an informal proposal for AEC authority to build a nuclear plant under terms of the new atomic energy law.

Commenting on the conference with AEC, REA Administrator Nelsen said co-op borrowers "wish to follow closely the developing application of atomic energy to economic power production" and "make available this new (fuel) source of electric energy to the farms of America at the earliest practicable time." Nelsen said he was given assurances that close REA-AEC liaison will be maintained. Five REA staff members have already been cleared for AEC classified information on power development programs.

Wire and Wireless Communication

USITA Head Sees Record Growth of Independent Phone Industry

THE record of the telephone business indicates that no saturation point in the use of telephones has ever been reached and is not presently in sight. On the contrary, the full potential of telephone service, per subscriber, has not even been seriously approached, and no one knows at this time how much service the industry will be able to give to the present subscriber. These were the challenging thoughts discussed in an address to the United States Independent Telephone Association's fifty-seventh annual convention, held in Chicago last month. The speaker was Warren B. Clay, who has served as president of the association for the past year.

The independent telephone industry has much reason for satisfaction in the rôle it has played in the entire industry's process of growth, Clay said. He cited the statistical record for class A, B, and C companies compiled and published by USITA for the calendar year ending December 31, 1953, which clearly indicates the strides made just in the 5-year period since 1949. "Based on returns from reporting companies, which we have reason to believe parallels, in a general direction, the experience of the entire independent telphone industry, we see here a 5-year increase of 35 per cent in the number of telephones, 65 per cent in the dollar amount of wages paid to employees, and 72.5 per cent in additional capitalization obtained for investment," Clay stated. "In other words, our business is growing, the number of employees and investors is growing. If we extend our comparative range back as far as 1944, we find that the number of independent company telephones has more than doubled in a single decade—from around four and a quarter million in 1944 to an estimated total of almost nine and a quarter million as of the end of 1953."

THE pace of independent company station growth over a 20-year period has been in the order of 135 per cent, Clay reported, or more than five times the rate of growth of the national population during the same period. With respect to future growth, the geographical location of independent companies is significant. Except for a few large metropolitan companies, independent telephone companies serve mostly in the rural and suburban areas, in small towns and cities. It is precisely in these areas where the relative growth of population during the past few

years is exceeding the rate of growth within the older and larger cities. Clay noted that the prevailing trend of population, and of business and industry in many instances, is more and more to the suburb, to the satellite cities, and fringe areas. "In other words," he stated, "we must look forward to the likelihood that future population growth will take place, to a relatively larger extent, in areas now served by independent companies, than in many areas now served by Bell system companies."

ANOTHER matter affecting the independent telephone industry concerns the somewhat misunderstood factor of corporate organization. Despite all the figures as to growth of business, the total number of independent companies is not growing. This has given rise to fears that the independents are not holding their own. "The true fact," said Clay, "is that much more business is being done. It may have to be done by fewer companies than in the past. This is not a new phenomenon by any means. It is a pattern of gradual and voluntary consolidation into larger corporate units, which has been going on for half a century or more."

Clay pointed to the automotive industry as the best example of this trend. Starting at the beginning of the century, when the automobile was little more than a glorified horseless carriage, there have been hundreds of different makes and manufacturers which have gradually consolidated under vigorously competitive circumstances.

"In our utility business," said Clay, "where there was and is no direct competition, there has been no need for such a drastic reduction in the number of operating companies. But even here changing economic conditions have had the effect of producing voluntary consolidations over a period of years. . . . It is only natural, of course, that the noticeable decline of independent telephone companies should give our membership some concern. But it is an economic fact, and as such it should be considered. It might be of passing interest to note that despite the great drop in electric utility establishments from the peak period around 1920 (when there were over 6,500) to a low point of less than 3,500 in 1932, the total number has remained fairly constant since that time. So, it may well be that we are going through an economic sweating-out period, which will run its course when our company organizations have reached the point of practical adjustment in relation to economic and efficient operation."

CLAY warned that if the independents are to share in the favors and benefits of the great American buying power, they are going to have to produce and sell a service which will win its own way. "Let us forget about our so-called 'monopoly status,' " he declared. "That is, at best, only a territorial right to operate. The telephone man who relies on his mere area monopoly to get his share of the future market is going to wake up some day and find he has the wrong number. It is a competitive world we will have to do business in from now on. And it is only restating the obvious for me to remind you that the best kind of competition comes from those who are best able to compete."

Officers for the coming year are: president, Donald H. Campbell, president, Rochester Telephone Corporation; first vice president, M. M. Hale, Rochester, Indiana; second vice president, D. C. Power, New York, New York; third vice president, C. W. Haas, Big Timber, Montana; executive vice president, Clyde S. Bailey; treasurer, Carl D. Brorein; and secretary, George C. Richert.

Financial News and Comment

BY OWEN ELY

More Liberal Depreciation Rules under New Tax Code

IN addition to the accelerated 5-year amortization permitted for portions of new utility plants on which certificates of necessity have been granted, the new Internal Revenue Code of 1954 contains new and liberal methods of depreciation which are of interest to the utilities as well as to other industries. As was the case with accelerated amortization, Congress' aim in providing the new methods was obviously to help finance plant expansion and new construction. The new provisions are general in application, and no special permission is necessary (as with 5-year amortization) to put them into effect.

Two new depreciation methods have been set up for possible use in tax returns —the "declining balance" and the "sum of the years' digits" plan. Adoption of these new methods will raise various questions regarding regulatory, accounting, and tax policies. And the utility analyst will now have to cope with four or five methods of depreciation—straight-line* or compound interest for reports to stockholders as at present, and accelerated amortization plus one of the two new methods in the tax reports—with the latter methods also reflected in the stockholders' reports through tax deferrals and reserves.

The tax department of Ebasco Services has recently prepared a 47-page brochure under the heading "Effect of Liberalized Methods of Depreciation under the Internal Revenue Code of 1954 on the Electric and Gas Utility Industries." The present discussion is largely based on this excellent study.

THE new methods are available only with respect to new plant on which construction began in 1954, and the new property must have a useful life of three years or more. Application of the new tax methods in the reports to the Treasury Department will result in heavier deductions for depreciation in the early years of service life (as compared with straight-line depreciation), with correspondingly smaller accruals in later years. Thus, income

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*Under pressure from the Federal Power Commission the straight-line method has now come into general use.

taxes will be partially postponed, though tax deferrals will be much smaller than with 5-year amortization.

If the company elects to use the declining balance method (DcB) it may then return to a straight-line method at any time. Different methods may be used for different portions of the property—such as one method for buildings and another for machinery. Moreover, the new methods can be applied to that portion of an emergency facility which has not been certified for 5-year amortization. Thus, the combination of methods in the table below might be used, according to Ebasco.

The table on page 653 gives a comparison of annual and cumulated depreciation rates under the four possible methods, for typical years and assuming a 40-year life.

Under the declining balance method the company may deduct up to double the straight-line amount for the first year only, but in the second year this rate is applied only to the net balance, so that the net effective rate declines steadily. Also, estimated salvage is not deducted in setting up the original amount to be depreciated. Under this method, with an average service life of thirty-three years, the annual depreciation would equal that of the straight-line method in the twelfth year and thereafter becomes progressively smaller. The effects on income tax payments would, of course, be the reverse—greater in the early years.

The property will never be fully depreciated by this method, however. When about half the estimated service life has expired, depreciation will approximate 64 per cent, and at the end of the estimated life about 87 per cent. (These percentages would be only slightly higher in the case of property with a shorter service life.) Thus, it might be advisable to switch over to the straight-line method in about the second year of the half-life, in which case it is estimated that the new straight-line rate would be about 70 per cent of the original straight-line rate.

The "sum of the years' digits" (SYD) method means the application of depreciation rates which are progressively lower each year. The rate for any year can be determined roughly by dividing the remaining number of years of estimated useful life (including the current year) by the number of years of the entire life, and applying the fraction to the rate for the initial year. (Actually, the rate is somewhat more complicated, requiring the use of algebraic formulae.) Under this method, depreciation accruals are greater than straight line during the first half and lower in each subsequent year. This method is more liberal than the declining balance method and correspondingly permits greater tax savings. Assuming a service life of thirty-three years, the depreciation accruals would amount to nearly 75 per cent in the first half of estimated life against 64 per cent under the declining balance method and 50 per cent with the straight-line method. Moreover, it fully

Property	*Method of Depreciation*
(1) Property 50 per cent certified as an emergency facility attributable to construction prior and subsequent to December 31, 1953.	Fifty per cent over five years as an emergency facility (§ 168).
(2) Property (uncertified portion) attributable to construction prior to December 31, 1953.	Straight-line method (§ 167).
(3) Property (uncertified portion) attributable to construction subsequent to December 31, 1953.	(1) Straight-line method, or (2) Declining balance method, or (3) Sum of the years' digits method.

depreciates the property at the end of the service life. The chart on page 655 shows the growth of accumulated tax deferrals for a hypothetical company under the two methods.

While other specially devised methods of liberalized depreciation might be permitted under the code, these are limited by the provision that depreciation accrued during the first two-thirds of useful life should not exceed that under the DcB method. The SYD method, which is not subject to this limitation, seems most advantageous—although once the utility has adopted this method it must stay with it, since it cannot change over to StL.

The code also permits the use of older methods which were alternatives to the straight-line method, such as the sinking-fund method. The latter method makes larger accruals to the depreciation reserve in later years rather than in earlier years, and hence would not have any favorable tax angle, although some companies might prefer to use it for their stockholder accounting.

FROM an accounting angle, the SYD method involves the use of complex formulas in the case of group depreciation. These formulas are discussed in Appendix A of the Ebasco study. However, the method of maintaining property records would not differ materially from those now in use. It will be necessary, of course, to segregate the properties which are subject to different kinds of depreciation methods. Utilities which have not been required to maintain the so-called "continuing property records" will, however, have to set up more detailed records for new additions to existing property, or new units. These records should prove valuable for rate-making as well as income tax purposes.

REFERRING again to the chart (for a description of the hypothetical company see pages 8 and 9 of the Ebasco study), it may be noted that while there is only a slight advantage in the SYD method over the DcB method at the end of a 10-year period, from there on the advantage increases more rapidly so that at the end of a 33-year estimated life the accumulated tax deferrals under SYD would exceed $18,000,000 compared with $13,000,000 under DcB.

Thus, there would be some $5,000,000 more available to use in reduction of the amount of equity financing which would otherwise be necessary to maintain the equity ratio at a fixed percentage. As compared with the StL method, this advantage is far greater—the necessary amount of common stock sales over the period is reduced from $28,700,000 on an StL basis to only $10,600,000 on an SYD basis. (See table on page 13 of brochure.) These calculations are based on using the

COMPARISON OF ANNUAL AND CUMULATED DEPRECIATION RATES UNDER FOUR METHODS ASSUMING 40-YEAR LIFE

	Rate of Accrual				*Cumulated Rate*			
	StL	*AA*	*DcB*	*SYD*	*StL*	*AA*	*DcB*	*SYD*
1st Year	2.50%	20%	5.00%	4.88%	2.50%	20%	5.00%	4.88%
5th Year	2.50	20	4.07	4.39	12.50	100	22.62	23.17
10th Year	2.50	—	3.15	3.78	25.00	—	40.13	43.29
20th Year	2.50	—	1.89	2.56	50.00	—	64.15	74.39
30th Year	2.50	—	*	*	75.00	—	78.54	93.29
40th Year	2.50	—	*	*	100.00	—	87.15	100.00

StL—Straight-line Method. AA—Accelerated Amortization. DcB—Declining Balance Method. SYD—Sum of the Years' Digits Method. *Not Reported.

SYD method for only 40 per cent of additions; if applied to 100 per cent of new property, and if the end of the period alone were considered, it is estimated that *no common stock financing at all would be required.*

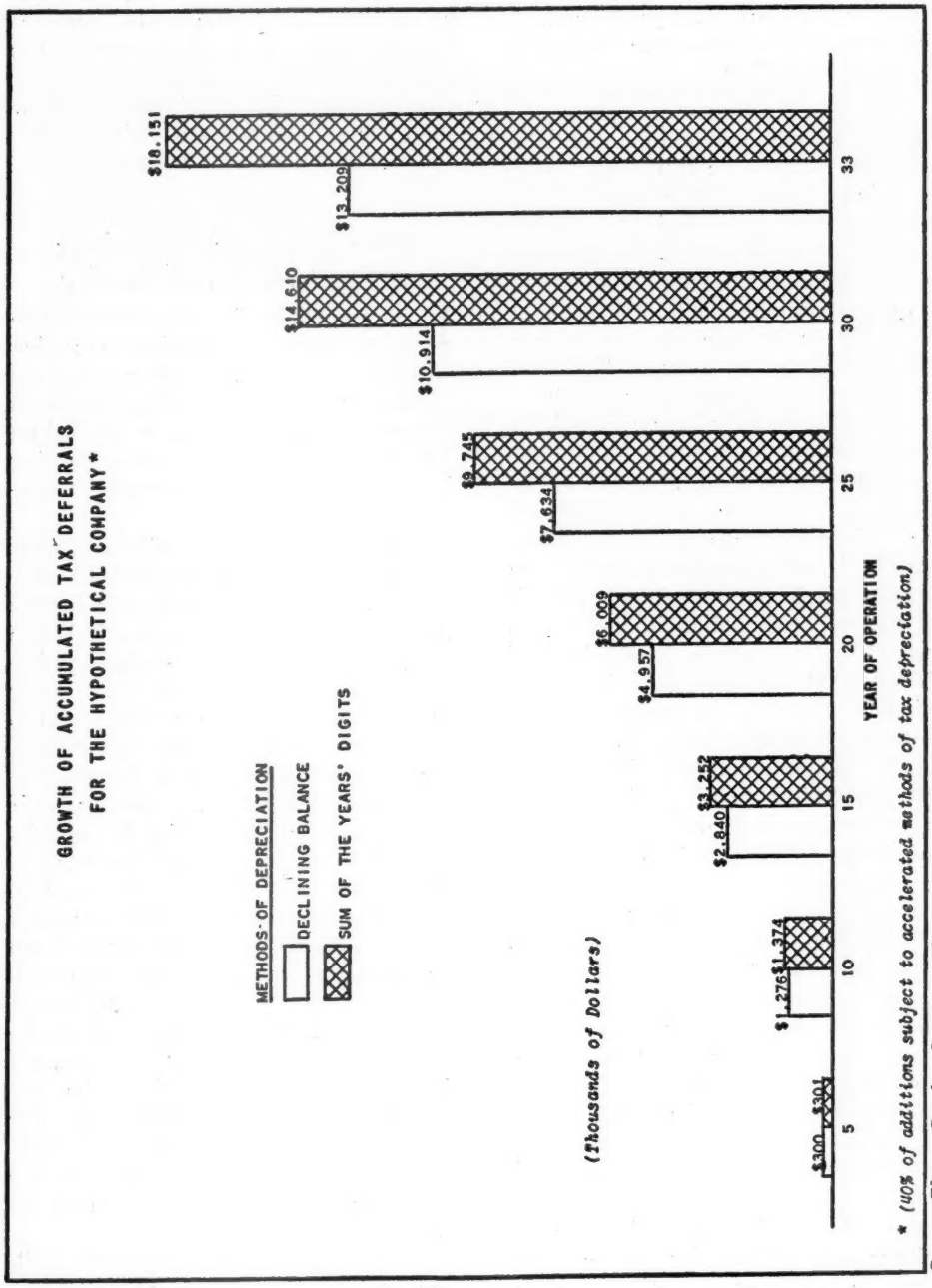
While as a practical matter it would be the intermediate points which set the requirements for new common stock, nevertheless the SYD method would greatly reduce the required amount of equity financing.

THE SYD method is thus undoubtedly more advantageous than any other method from the standpoint of tax deferrals, and would reduce as much as possible the need for equity financing. On the other hand, if the utility executive is concerned over possible future changes in regulatory

NEW YORK BROKERS' UTILITY ANALYSES*

Company Analyses	*Firm*	*No. Pages*	*Issued*
American Gas & Elec.	Tucker, Anthony & Co.	3	Sept.
Arizona Public Service	Carl M. Loeb, Rhoades & Co.	6	Oct.
Central Indiana Gas	Sutro Bros. & Co.	1	Aug.
Central & South West	Paine, Webber, Jackson & Curtis	2	July
Consolidated Edison	Argus Research Corporation	2	Aug.
Dayton Power & Light	Argus Research Corporation	?	July
Duquesne Light	Argus Research Corporation	2	Sept.
Florida Power & Light	Argus Research Corporation	?	Oct.
Gulf States Utilities	Argus Research Corporation	2	Oct.
Houston Natural Gas	Paine, Webber, Jackson & Curtis	2	Aug.
Illinois Power Co.	Argus Research Corporation	4	Aug.
Illinois Power Co.	Clark, Dodge & Co.	4	Oct.
Iowa Power & Light	Paine, Webber, Jackson & Curtis	2	Aug.
Iowa Power & Light	Thomson & McKinnon	1	Sept.
Kentucky Utilities Co.	Kerr & Co.	4	Sept.
Middle South Utilities	Goodbody & Co.	3	Oct.
Montana Power	Clark, Dodge & Co.	4	Oct.
Northern Illinois Gas	A. G. Becker & Co., Inc.	2	July
Northern States Power	Argus Research Corporation	2	Aug.
Pacific Power & Light	A. C. Allyn & Company, Inc.	12	Aug.
Puget Sound Power & Lt.	Goodbody & Co.	2	Sept.
Rochester Gas & Electric	Reynolds & Company	1	July
So. Carolina Elec. & Gas	Josephthal & Co.	1	Oct.
So. Carolina Elec. & Gas	Argus Research Corporation	?	Aug.
Southern Colorado Power	Cohn & Company	2	Sept.
Southern Company	Josephthal & Co.	4	July
Southern Nevada Power	Cruttenden & Co.	4	June
Standard Power & Light	Model, Roland & Stone	6	June
United Gas Corp.	Argus Research Corporation	?	July
Washington Water Power	Kerr & Co.	4	Sept.
West Penn Electric	Josephthal & Co.	2	Aug.
Wisconsin Power & Light	Blair & Co.	3	Sept.
Regular Bulletins and Tabulations			
Utility Earnings	First Boston Corporation	4	July
Monthly Review of Utility Developments	Josephthal & Co.	4	Oct.
Public Utility Common Stocks	G. A. Saxton & Co.	2	Aug.
Public Utility Bulletin	Eastman, Dillon & Co.	10	Oct.
Electric Utility Companies— Comparative Data in Regional Groupings	Carl M. Loeb, Rhoades & Co.	16	Aug.
Natural Gas Companies—Comparative Data	Carl M. Loeb, Rhoades & Co.	16	Aug.
Other Bulletins on General Topics			
Growth Utilities in a Growth Industry	Hirsch & Co.	7	Aug.
Electric Utility Operating Cos.	Hemphill, Noyes & Co.	4	Sept.

* Similar lists have appeared in the July 22nd and March 18th issues, and in the 1953 issues of November 19th, September 9th, June 4th, and February 26th; also in preceding years.


GROWTH OF ACCUMULATED TAX DEFERRALS
FOR THE HYPOTHETICAL COMPANY*
METHODS OF DEPRECIATION
DECLINING BALANCE
SUM OF THE YEARS' DIGITS
(Thousands of Dollars)
$300
$301
$1,276
$1,374
$2,840
$3,252
$4,957
$6,009
$7,634
$8,745
$10,914
$14,610
$13,209
$18,151
5
10
15
20
25
30
33
YEAR OF OPERATION
* (40% of additions subject to accelerated methods of tax depreciation)
Source, Ebasco Services Incorporated

policy, etc., he may prefer to retain the greater flexibility of policy permitted with the DcB method, which can be changed to StL whenever desired.

Of course, the question of a future increase or decrease in the federal corporate income tax rate also enters the picture. If a sharp reduction in the tax rate should occur in the next five or ten years, the advantages of tax deferrals will be increased; on the other hand, if World War III should eventuate, with a still higher corporate rate or a return of EPT, tax deferrals would obviously be disadvantageous. This is a "calculated risk" the utility must take.

In considering the advantages to be obtained from tax deferrals, one approach is to estimate on a discount basis the net present value of the results obtainable from each method. In the case of the hypothetical company referred to in the Ebasco study, with net property additions of $188,367,000 over a 33-year period, it was estimated that with the present tax rate the aggregate present value of the tax deferral would be $13,186,000 if computed over the full life of each year's additions.

The decision whether to use one of the new accelerated depreciation methods (for tax returns only) will doubtless be largely determined by the policy of the local regulatory agency. Obviously, if the regulatory authorities insist that the benefits of cash savings from tax deferrals should be considered the property of consumers, and hence to be devoted to reduction of rates, the utility management will think twice about using the new methods, even though they might otherwise prove of general benefit to both consumers and stockholders.

Another question would be how the balance sheet reserves for deferred taxes would be considered in relation to surplus and to the rate base. However, the use of accelerated amortization for tax purposes in recent years has paved the way for use of the new methods, and it appears likely that the commissions will in general follow the same policies and accounting regulations as they have with respect to AA.

Due Diligence Meetings Should Be Held Earlier

It apparently has become customary to fix the date of a due diligence meeting only two or three business days before the date of the competitive bidding. Thus with competitive bids scheduled to be filed on Tuesday noon, the information meeting is frequently set for the preceding Thursday or Friday.

This may suit the convenience of company officials who wish to spend the week end in New York and stay over for the bidding, but it does not seem practical from the utility analyst's point of view. An important preliminary in the bond-selling program is to distribute a sales memo to the staff of the banking house. Frequently, the information obtained in the due diligence meeting would be of great value if it were summarized for use in the sales memo by those who attend the meeting. But usually this memo must be prepared further in advance. Some houses want it drafted at least a week early, so that it can be mimeographed and distributed to reach branch offices four or five days before the bidding date. Thus, the sales staff can familiarize themselves with the background information summarized from the prospectus, have an opportunity to appraise the new security in comparison with similar issues, and then contact customers in a preliminary way—as permitted under the new SEC rules.

Accordingly, it would seem worth while for utilities which are issuing securities

either to set their information meetings at an earlier date (preferably a week or ten days in advance of the bidding) or to supply members of bidding groups at that time with any special literature, earnings estimates, etc., which would become available at the meeting. In any event, the tendency to hold the due diligence meetings one or two business days before the bidding renders it relatively useless.

ELECTRIC UTILITY STATISTICS AND RATIOS

	Unit	Month Latest	Latest 12 Mos.	Per Cent Increase Latest Month	Per Cent Increase Latest 12 Mos.
Operating Statistics					
Output KWH—Total (July)	Bill. KWH	40.1	451.6	5%	9%
Hydro-generated	"	8.8	—	—	—
Steam-generated	"	31.3	—	7	—
Capacity (July)	Mill. KWH	97.0	—	—	13
Peak Load (May)	"	74.0	—	5	—
Fuel Use (February): Coal	Mill. Tons	9.4	—	D2	—
Gas	Mill. Mcf	127.4	—	16	—
Oil	Mill. Bbls.	4.4	—	D30	—
Coal Stocks	Mill. Tons	45.1	—	4	—
Customers, Sales, Revenues, and Plant (July)					
KWH Sales—Residential	Bill. KWH	6.2	76	13%	11%
Commercial	"	5.2	56	9	8
Industrial	"	11.9	147	D5	D2
Total, Incl. Misc.	"	30.0	359	2	3
Customers—Residential	Mill.	32.8	—	3	3
Commercial	"	4.6	—	2	2
Industrial	"	.5	—	2	2
Total, Incl. Others	"	40.2	—	3	3
Income Account—Summary (July)					
Revenues—Residential	Mill. $	177	2,123	12%	10%
Commercial	"	133	1,483	8	7
Industrial	"	140	1,697	D2	1
Total, Incl. Misc. Sales	"	499	5,833	6	6
Sales to Other Utilities	"	35	423	1	1
Misc. Income	"	9	235	13	4
Expenditures—Fuel	"	81	988	D6	1
Labor	"	103	1,178	4	5
Misc. Expenses	"	73	912	D1	4
Depreciation	"	52	600	12	12
Taxes	"	117	1,367	11	6
Interest	"	32	360	13	11
Amortization, etc.	"	—	—	NC	NC
Net Income	"	84	1,085	16	7
Preferred Div. (Est.)	"	13	142	D2	8
Bal. for Common Stk. (Est.)	"	71	943	16	7
Common Dividends (Est.)	"	47	683	8	12
Electric Utility Plant (July)	"	26,630	—	10%	—
Reserve for Depreciation and Amort.	"	5,150	—	9	—
Net Electric Utility Plant	"	21,480	—	10	—
Life Insurance Investments (January 1st-October 8th)					
Utility Bonds	"	—	807	—	44%
Utility Stocks	"	—	13	—	163
Per Cent of All Investments	"	—	11%	—	15

D—Decrease. NC—Not comparable.

RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

1953 Rev. (Mill.)			10/21/54 Price About	Dividend Rate	Approx. Yield	Share Earnings* Current Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Div. Payout	Moody Bond Rating
		Pipelines									
$ 3	O	Alabama-Tenn. Nat. Gas	18	$ .60	3.3%	$1.37	3%	June	13.1	44%	—
12	O	East. Tenn. Nat. Gas ...	10	—	—	.54	26	Mar.	18.5	—	Ba
38	S	Mississippi Riv. Fuel	45	2.40	5.3	3.36	29	June	13.4	71	—
48	S	Southern Nat. Gas	30	1.60	5.3	1.96	—	June	15.3	82	A
133	O	Tenn. Gas Trans.	27	1.40	5.2	1.76	7	June	15.3	80	A
137	O	Texas East. Trans.	24	1.40	5.8	1.62	22	June	14.8	86	—
63	O	Texas Gas Trans.	20	1.00#	5.0	1.53	11	June	13.1	65	—
59	O	Transcontinental Gas	25	1.40	5.6	2.04	38	June	12.3	69	—
		Averages			5.1%				14.5	71%	
		Integrated Companies									
118	S	American Natural Gas ..	46	$2.00	4.3%	$3.73	12%	June	12.3	54%	—
18	O	Colorado Interstate Gas .	47	1.25	2.7	1.97	NC	May	23.9	63	—
232	S	Columbia Gas System ...	15	.90	6.0	.87	24	June	17.2	103	A
9	O	Commonwealth Gas	9	(a)	4.0a	.50	28	Dec.	18.0	—	—
9	A	Consol. Gas Util.	14	.75	5.4	.98	D9	July	14.3	77	—
191	S	Consol. Nat. Gas	70	2.50	3.6	5.27	39	June	13.3	47	Aaa
111	S	El Paso Nat. Gas	38	1.60	4.2	2.44	D12	Aug.	15.6	66	—
32	S	Equitable Gas	27	1.40	5.2	1.73	D13	June	15.6	81	A
10	O	Kansas-Neb. Nat. Gas ..	26	1.20	4.6	1.87	14	Dec.	13.9	64	Baa
72	S	Lone Star Gas	27	1.40	5.2	1.66	D5	June	16.3	84	—
20	S	Montana-Dakota Utils. ..	23	.90	3.9	1.36	62	June	16.9	66	Baa
14	O	Mountain Fuel Supply ..	25	1.00	4.0	1.47	NC	June	17.0	68	A
49	A	National Fuel Gas	20	1.00	5.0	1.52	23	June	13.2	66	Aa
66	S	Northern Nat. Gas	42	2.00	4.8	2.67	6	June	15.7	75	A
32	S	Oklahoma Nat. Gas	22	1.20	5.5	1.45	23	July	15.2	83	—
95	S	Panhandle East. P. L. ..	69	2.50#	3.6	4.93	D1	Dec.	14.0	51	A
8	O	Pennsylvania Gas	19	1.00	5.3	.86	D52	Dec.	—	116	—
130	S	Peoples Gas Lt. & Coke ..	156	7.00	4.5	11.26	22	June	13.9	62	A
23	O	Southern Union Gas	19	.90	4.7	1.22	20	June	15.6	74	A
209	S	United Gas Corp.	32	1.50	4.7	2.13	14	June	15.0	70	A
		Averages			4.6%				15.3	74%	
		Retail Distributors									
20	A	Alabama Gas	26	$1.28	4.9%	$1.84	43%	Aug.	14.1	70%	Baa
32	O	Atlanta Gas Light	24	1.20	5.0	1.71	D5	June	14.0	70	A
46	S	Brooklyn Union Gas	31	1.70	5.5	2.68	83	June	11.6	63	A
28	O	Central Elec. & Gas	14	.80	5.7	1.11	16	June	12.6	72	—
10	O	Central Indiana Gas	14	.60	4.3	.69	21	June	—	87	A
4	O	Chattanooga Gas	6	—	—	.28	D6	June	21.4	—	—
44	O	Gas Service	23	1.24	5.4	1.67	NC	Feb.	13.8	74	—
6	O	Hartford Gas	38	2.00	5.3	2.42	17	Dec.	15.7	83	—
14	O	Houston Nat. Gas	27	1.00	3.7	2.02	53	July	13.4	50	—
12	O	Indiana Gas & Water	31	1.40	4.5	2.29	18	Aug.	13.5	61	A
5	A	Kings Co. Lighting	17	.80	4.7	1.22	23	June	13.9	66	Baa
33	S	Laclede Gas	12	.60	5.0	.81	D16	Aug.	14.8	74	A
27	O	Minneapolis Gas	27	1.20	4.4	1.63	21	June	16.6	74	—
11	O	Mississippi Valley Gas ..	22	1.00	4.5	1.90	D10	May	11.6	53	—
8	O	Mobile Gas Service	18	.90	5.0	1.35	D16	June	13.3	67	—
6	O	New Haven Gas	28	1.60	5.7	1.87	31	Dec.	15.0	86	—
8	O	New Jersey Nat. Gas ...	19	1.00E	5.3	1.51	36	June	12.6	66	—
54	O	Northern Illinois Gas ...	21	.80	3.8	.77	NC	May	—	104	A
162	S	Pacific Lighting	36	2.00	5.6	1.93	D13	June	18.7	104	—
111	O	Portland Gas & Coke	21	.90	4.3	1.61	D5	June	13.0	56	Baa
8	A	Providence Gas	9	.48	5.3	.41	21	Dec.	—	117	—
3	A	Rio Grande Valley Gas ..	3	.12	4.0	.23	5	June	13.0	52	—
6	O	Seattle Gas	12	.40	3.3	.77	48	Mar.	15.6	52	Baa
7	O	South Jersey Gas	22	1.20	5.5	1.54	21	Aug.	14.3	78	Baa
22	S	United Gas Improvement	38	1.80	4.7	2.20	D7	June	17.3	82	A
33	S	Washington Gas Light ..	35	1.80	5.1	2.76	13	June	12.7	65	Aaa
5	O	Western Kentucky Gas ..	13	—	—	1.10	13	Dec.	11.8	—	—
		Averages			4.8%				14.9	74%	

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER UTILITIES

1953 Rev. (Mill.)			10/21/54 Price About	Dividend Rate	Approx. Yield	Share Earnings* Current Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Div. Payout	Moody Bond Rating
		Communications Companies									
		Bell System									
$4,417	S	Amer. Tel. & Tel. (Cons.)	172	$9.00	5.2%	$11.84**	3%	Aug.	14.5	76%	Aa
202	A	Bell Tel. of Canada	46	2.00	4.3	2.31	19	Dec.	19.9	87	Baa
34	O	Cin. & Sub. Bell Tel.	81	4.50	5.6	5.45	18	Dec.	14.9	83	—
144	A	Mountain States T. & T.	116	6.60	5.7	7.18	45	Aug.	16.1	92	Aa
237	A	New England T. & T.	130	8.00	6.2	8.25**	10	June	15.8	97	Aa
579	S	Pacific Tel. & Tel.	129	7.00	5.4	8.27**	10	Aug.	15.6	85	Aa
74	O	So. New England Tel.	38	2.00	5.3	1.87	7	Dec.	20.3	107	—
		Averages			5.3%				16.7	90%	
		Independents									
10	O	Calif. Water & Tel.	18	$1.00	5.6%	$1.48	22%	June	12.2	68%	—
11	O	Central Telephone	16	.90	5.6	1.69	30	June	9.5	53	—
2	O	Florida Telephone	15	.80	5.3	.85	D14	Dec.	17.6	94	—
128	S	General Telephone	33	1.60	4.8	2.70**	D10	July	12.2	59	Ba
5	O	Inter-Mountain Tel.	14	.80	5.7	.93	43	Dec.	15.1	86	—
14	S	Peninsular Tel.	38	1.80	4.7	2.22	27	June	17.1	81	—
16	O	Rochester Tel.	15	.80	5.3	1.17	D5	June	12.8	68	Aa
2	O	Southeastern Tel.	13	.80	6.2	1.15	15	June	11.3	70	—
7	O	Southwestern Sts. Tel.	19	1.00	5.3	1.54	12	Dec.	12.3	65	—
32	O	Telephone Bond & Share	21	1.00	4.8	1.50 Est.	—	Dec. '54	14.0	67	—
15	O	United Utilities	19	1.12	5.9	1.61**	D1	June	11.8	70	—
195	S	Western Union Tel.	58	3.00	5.2	6.77	243	Dec.	8.6	44	Ba
		Averages			5.4%				12.9	69%	
		Transit Companies									
29	A	Capital Transit	10	$1.20	12.0%	$1.16	4%	Aug.	8.6	138%	Baa
14	O	Cincinnati Transit	4	.75	18.8	.93	D17	Dec.	4.3	81	—
9	O	Dallas Ry. & Terminal	9	1.40	15.6	1.83	D21	Dec.	4.9	77	—
245	S	Greyhound Corp.	13	1.00	7.7	1.17	D10	Mar.	11.1	85	—
26	O	Los Angeles Transit	13	1.00	7.7	1.20	4	Dec.	10.8	83	—
30	S	National City Lines	20	1.40	7.0	2.35	26	Dec.	8.5	60	—
73	O	Phila. Transit	8	.30	3.8	Deficit	—	Dec.	—	—	Ba
7	O	Rochester Transit	4	.40	10.0	.57	119	Dec.	7.0	70	—
27	O	St. Louis P.S.A.	14	1.40	10.0	1.22	30	Dec.	11.5	115	—
18	S	Twin City R.T.	17	1.60	9.4	.22	NC	Dec.	—	—	Ba
25	O	United Transit	3½	—	—	.73	30	Dec.	4.8	—	—
		Averages			10.6%				7.9	89%	
		Water Companies									
		Holding Companies									
32	S	American Water Works	10½	$ .50	4.8%	$1.02	D5%	June	10.3	49%	—
4	O	New York Water Service	69	.80	1.2	1.38	NC	June	—	59	—
		Operating Companies									
3	O	Bridgeport Hydraulic	31	$1.60	5.2%	$1.57	D3%	Dec.	19.7	102%	—
11	O	Calif. Water Service	38	2.20	5.8	2.79	19	Aug.	13.6	79	A
2	O	Elizabethtown Water	128	5.00	3.9	6.65	D4	Dec.	19.2	75	—
7	S	Hackensack Water	45	2.00	4.4	3.53	46	Dec.	12.7	57	Aa
4	O	Jamaica Water Supply	38	1.80	4.7	2.71	D5	June	14.0	66	A
3	O	New Haven Water	62	3.00	4.8	2.50	D10	Dec.	—	120	—
1	O	Ohio Water Service	26	1.50	5.8	1.93	4	June	13.5	78	—
6	O	Phila. & Sub. Water	52	1.00	1.9	5.50	23	Dec.	9.5	18	—
2	O	Plainfield Union Wt.	54	3.00	5.6	3.70	D7	Dec.	14.6	81	—
2	O	San Jose Water	38	2.00	5.3	2.40	21	Aug.	15.8	83	—
9	O	Scranton-Springbrook	18	.90	5.0	1.32	23	June	13.6	68	A
3	O	Southern Calif. Water	13	.65	5.0	.77	D14	June	16.9	84	A
3	O	West Va. Water Service	42	1.40	3.3	1.50**	14	June	—	93	—
		Averages			4.7%				14.8	77%	

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. *Earnings are calculated on present number of shares outstanding, except as otherwise indicated. **On average shares outstanding. #—A 2 per cent stock dividend was also paid December 30, 1953. (a)—Paid 4 per cent stock dividend. NC—Not comparable. E—Estimated.

What Others Think

AGA Annual Convention

THE gas industry is now serving more than 27,000,000 utility gas customers, has assets of over $13.5 billion, and plans to spend more than $3.5 billion in the next four years for expansion. These were among the impressive accomplishments of the industry listed by Earl H. Eacker in his address to the American Gas Association's thirty-sixth annual convention in Atlantic City last month. Eacker, as retiring president of the AGA, told the 4,500 United States and Canadian delegates attending the convention that sales of gas by utilities and pipelines have set a new peak with an additional rise of 31.5 per cent over 1953 totals expected by the end of 1957. He noted that space-heating sales have continued to soar "despite all we have heard about the heat pump and atomic energy for commercial use." The industry is adding more than 1,000,000 house-heating customers a year, and by the end of 1954 more than 14,000,000 American homes will be heated by gas—about one-half of all the residential gas customers in the United States.

Eacker warned, however, that these impressive accomplishments should not lull the industry to sleep in the face of competitive inroads in the domestic gas market. "While both electric and gas range sales have climbed in the past fifteen years, the gain for electric ranges has been about 288 per cent to current annual sales of about 1,300,000 units," Eacker said. "Against this, gas range sales in fifteen years gained some 45 per cent to total about 2,200,000 units annually. More gas water heaters are being sold than electric, but the 15-year total gain for electric is 660 per cent *versus* 326 per cent for gas." Although the gas industry has come a long way in meeting this competitive threat to its markets, the industry still has a big job ahead of it.

"IT is unfortunate, but partly true," Eacker continued, "that through complacency—or lethargy—or other reasons beyond our control, we have permitted our competition to capture the term 'modern' for its very own. It has been used—and is still being used—to imply that our industry and our appliances are antiquated, outmoded, and obsolete. You and I know better. But that is not enough. Our customers and potential customers must know it."

Although a recent survey indicated that most local gas companies do not have organized programs for improving their public relations, Eacker noted that the industry's national associations — GAMA, INGAA, and AGA—have taken hold of the problem and have set out to aid in its solution.

LOOKING to the future, Eacker reported that more than $3.5 billion, representing 90 per cent of the new construction expenditures by the gas utility and pipeline companies in the next four years, will be devoted to expansion of the nation's natural gas systems. Natural gas will be brought into new territories, including the Pacific Northwest. Every section of the nation will then have a source of natural gas. Canadian gas reserves and the expectation that these reserves will soon be piped to Canadian industrial centers and, it is hoped by many, to industrial centers in the United States, pave the way for a spectacular development of the Canadian gas industry. Additional supplies will go to areas already receiving more than 54 billion therms of natural gas being sold annually in the United States, Eacker said.

Another encouraging sign is the increase of natural gas supplies at a rate greater than the ever-growing production. At the beginning of 1954, Eacker said, the AGA Committee on Natural Gas Reserves estimated proved recoverable reserves of natural gas totaled 211.7 trillion cubic feet. This was an increase of 11.7 trillion cubic feet over the previous year and the gain was made in the face of a record production of 9.2 trillion cubic feet in 1953. "Thus, it would appear that there are ample supplies of natural gas for many years ahead, provided the climate for its production is such that it will be made available for ultimate consumption," he stated.

Eacker believes that one of the most fertile fields today for domestic gas service is the gas air-conditioning field. "Its importance to pipeline companies and distributing companies for the future and its possibilities are so great," he said, "I call it especially to your attention. Particularly do I believe we should step up our research on this and co-operate that work with the work of the manufacturers who have and are spending large sums of their own money on air conditioning by gas . . ."

SALES consciousness and sensitivity to the importance of load building appeared to dominate the atmosphere at the convention. One of the most noteworthy addresses was a warning from Sheldon Coleman, president of the Gas Appliance Manufacturers Association, that the electric utility industry would soon be promoting the heat pump to capture the winter heating market as a load balancer for summer air conditioning. Coleman quoted from a recently published statement by Phillip D. Reed, chairman of the board of General Electric Company, that within a decade his company expects to be selling more than one million heat pumps a year. The heat pump can cool an entire house in the summer, heat it in the winter, and "condition" the air all year long. It requires only air and electricity to operate—no fuel or water.

To meet this threat to the gas heating load, Coleman said the industry must bend every effort to develop a gas heat pump "that cools in summer, heats in winter, and uses gas to give the extra winter heat needed in most areas. After all," he explained, "the heat pump is just the refrigeration cycle in reverse. It can be run with any prime mover, such as an electric motor or a gas engine, but the gas engine to compete must be sharply better—sharply different—than anything we know about today. This gas engine could be of the internal combustion type or an external combustion type, such as a thermal engine, or the hot air engine."

The AGA or a large group of powerful gas utilities may be the only organization with sufficient resources to be sure to develop such an engine, Coleman declared. He suggested a minimum investment by

the industry of a million dollars over a 4-year period. Coleman believes that a gas heat pump will compete with electricity even lower than one cent per kilowatt and noted that, in general, there is no electricity in sight (except in a few government-subsidized spots) that is any cheaper. Even in the event that the public will always prefer regular gas furnaces for heating to a gas heat pump, such an investment would not be wasted. A gas engine system would be ideal, Coleman said, to run a gas air-conditioning unit that could combine with conventional gas furnaces for year-round climate control for the American home—for year-round gas load for the utilities—and for year-round production for the gas appliance manufacturers.

As might be expected, there was much discussion at the convention of the impact on the industry of the U. S. Supreme Court's decision in the Phillips Petroleum Company Case. The most forceful address on this subject was delivered by the chairman of Phillips Petroleum, Kenneth S. Adams. Directing his remarks principally to gas distributors, Adams painted a bleak picture of what the Phillips decision, if allowed to stand, may mean to them:

> Curtailment of pipeline projects is dramatic proof that the consumers' gas supply will be gradually reduced under federal regulation. It means that many thousands of homes will not have any natural gas, and that many more will be denied the additional gas they would like to have.
>
> It means that huge quantities of steel and other equipment will not be used for thousands of miles of pipelines, their pumping stations and other facilities that will not be built. It means the loss of other related construction jobs which would require huge quantities of materials and large employment.
>
> To you, it means a reduced volume of business. It means the death blow to your future gas supply. Where will your present volume come from, let alone the additional quantity you desire, after the dwindling supplies in the underground reservoirs now serving you are gone?

Adams said the Supreme Court's decision may require a reappraisal of the industry's plans to spend an additional $3.5 billion in the next four years to help meet the demand for gas services. "Most of the discovered but undeveloped backlog of gas supplies that made possible the great quantities of gas going to your customers over the past several years has now been harnessed to the market," he said. "So-called distress gas is no longer available. Every gas field which has been dedicated to supplying your markets is a natural underground reservoir containing only so much gas. The quantity in that reservoir is constantly dwindling as the gas is used."

THERE is nothing arbitrary or vindictive about the refusal of producers to make sales under federal regulation, Adams declared. On the contrary, their best business judgment compels them to avoid selling their gas in a market where they have no idea as to the price they will receive for it. He warned that distributors stand to lose much more than producers in this situation. While distributors face loss of the gas supply necessary to keep them in business, producers can look to the presently large and expanding market outlets for natural gas within the states in which it is produced—markets outside the realm of federal regulation.

"There is now in the process of building within these major gas-producing

states the greatest industrial empire ever seen in this country," he pointed out. "The great variety of plants represented require almost unbelievable quantities of natural gas for heat, power, or as a raw material for petrochemicals. Phillips sells more gas to just one of these plants than is used by all the residential customers in almost any one of your larger cities. Those who fought for federal regulation of producers helped lay the cornerstone of this vast manufacturing empire. This industrial giant is yet a baby, but to those who have not nursed it along and seen it grow, its magnitude and its future stature are beyond imagination."

Why should a producer be concerned about federal regulation when he foresees huge, unregulated outlets for his gas within producing states? Because, said Adams, producers sincerely believe it is inevitable that federal regulation will be removed sooner or later as a result of the demands of consumers after they suffer its full consequences. "Therefore," he continued, "it seems foolish to go through a period of chaos during which everybody loses—customers, industry, investors, labor, distributors, transporters, and producers. Furthermore, we producers have a substantial investment in gas reserves, gas wells, gathering lines, and treating plants which are now connected to interstate pipelines. It is only natural that we want to continue operating these properties free of governmental regulation."

ADAMS recalled that several gas distribution companies were in the forefront opposing the Kerr Bill in 1950, which would have spelled out the exemption of producers and gatherers from regulation by the Federal Power Commission. Although the Kerr Bill was passed by Congress, it was killed by a presidential veto. Those distributors opposing the legislation apparently overlooked the devastating result on their gas supplies and were blinded by their anxiety to remove the onus of higher consumer charges, Adams declared. He warned that it is time for distributors to reverse their approach. Adams stated:

> Not only did you oppose or fail to support this legislation, you have arbitrarily opposed the transmission companies' payment of any increased prices to producers which were essential to protect your future gas supply. Spurred by your desire to avoid unfavorable publicity regarding your own rate increases, you have indirectly been fighting every producer who supplies you with your lifeblood. Is it not wiser for you to protect your future gas supplies by conducting an educational campaign to inform your consumers as to just what is involved in assuring their continuing natural gas supply? Give them the complete and correct story — immediately, forcefully, and incessantly. Then they can intelligently protect their interests as the issue comes before Congress.

ADAMS deplored the fact that many gas customers seem to be under the illusion that federal regulation is essential to hold their gas costs down merely because it gives a third party authority to determine that rates are equitable. They do not know what really comprises their gas rates. "I doubt that 5 per cent of your household customers have any idea that the price the producer receives for his gas in the field is actually a very small part of their bills —on the average less than 10 per cent," Adams stated. "Your customer probably has no idea that even if a regulating agency cut the field price 20 per cent, and all that cut were passed on to him, the average United States residential consumer would

realize a saving of only about one dime a month. He has no idea that that small difference to him is a big item to the producer and probably would be the determining factor as to whether or not the producer would supply his market.

THE consumer needs to know that by far the larger portion of his gas bill is payment for the investment in the construction and for the maintenance and operation of federally regulated interstate pipelines and locally regulated city distribution systems, Adams said. As an example, he pointed out that in Milwaukee the average residential user paid $1.21 per thousand cubic feet for gas which cost the distributor 31.8 cents, and for which the pipeline paid the producer only 8.7 cents. Only 3 per cent of the cost of gas to a New York consumer goes back to producers as payment for their costs and financial risks in supplying him gas. "These facts make clear that any appreciable reduction in the supply of gas you handle—sure to come under federal regulation of producers—will raise the consumer's gas price far more than he could realize as savings from a drastic cut in the field price," Adams pointed out. "His hope for any sizable reduction in his gas cost lies in having a greater supply moving through your distribution systems."

Adams said distribution companies have everything to gain by telling their customers the facts and everything to lose if their customers are not sufficiently informed to demand congressional action which will remove this threat to their gas supply and their pocketbooks. The same principles apply to transmission companies whose operations are regulated by the Federal Power Commission, Adams said. This regulation is a substitute for the competition that in the gas production business protects the customers against excessive charges. A misguided opinion of only a small segment of the public caused the veto of legislation which would have prevented the chaos facing distributors today, he concluded. He reminded his audience that many government representatives, even though convinced that the industry is right, must be backed by an expressed public opinion before publicly taking a stand on such an issue. "This is your fight," Adams emphasized, and left the delegates with the hope that they would fight vigorously "to assure a future gas supply for your customers and the continued growth of your industry."

F. M. BANKS, president and general manager of Southern California Gas Company, was elected president of AGA for the coming year. Other officers elected were: Dean H. Mitchell, president of Northern Indiana Public Service Company, first vice president; C. H. Zachry, president of Southern Union Gas Company, second vice president; and Vincent T. Miles, treasurer of Long Island Lighting Company, treasurer. Next year, the AGA convention will be held in Los Angeles, October 17th-19th.

—F. M.

"YOU have heard the voice of demagogues declaring that human rights take precedence over property rights, but they will never attempt to tell you of a community or nation existing in past or present history where property rights were violated, without the simultaneous violation of the most sacred human rights."

—WILLARD F. ROCKWELL,
Chairman of the board, Rockwell Manufacturing Company.

The March of Events

Power Firm Proposed

DRAFT legislation for a 4-state public electric corporation to further the Northwest power program was released last month by Northwest Public Power Association officials in Vancouver, Washington. The proposed bill provides for creation of a Columbia River Development Corporation, whose 5-man board would be appointed by the President. Gus Norwood, executive secretary of the public power group, said the proposal was "tentative, preliminary, unsponsored, and unindorsed. It is for discussion purposes."

Modeled after the recently created St. Lawrence Seaway Act, the corporation would be empowered to issue 50-year electric revenue bonds to build generation and transmission plant. Army Engineers and Bureau of Reclamation would continue to construct the dams financed by the corporation. The corporation would take the place of the Bonneville Power Administration and would succeed to its assets and liabilities.

The bill does not concern itself with whether power is sold locally by public or private utilities.

Arkansas

Ruling on Appliance Selling Appealed

A RULING by the state public service commission that it lacked authority to order a public utility firm to stop selling appliances and air-conditioning equipment was appealed last month to the Pulaski county circuit court in Little Rock.

On the ground that it lacked jurisdiction, the commission on September 13th dismissed a petition by the refrigeration and air-conditioning division of the Associated Mechanical Contractors of Arkansas charging unfair competition by the Arkansas Louisiana Gas Company in the handling of air-conditioning and refrigeration appliances and installation.

District of Columbia

Fights Rate Boost

THE Capital Transit Company recently asked the District of Columbia Public Utilities Commission to throw out the request of the Potomac Electric Power Company for a $5,785,000 annual rate increase.

The transit company said Pepco's application for the rate hike fails "to show on its face any need for an increase in rates for electric service in the District of Columbia."

Barring outright dismissal of the rate increase application, Capital Transit asked the commission to order Pepco to amend its rate application so as to more "clearly and concisely set forth the facts upon which the applicant bases its position that an increase in rates for electric service is necessary."

The power company asked for the rate increase on October 4th, saying the requested boost would net it $2,591,000 after taxes and would result in a rate of return of 6.25 per cent. The commission scheduled a public hearing on the request for November 16th.

Florida

Senator Speaks on REA

U. S. SENATOR Spessard Holland (Democrat, Florida), speaking at Live Oak last month, said there was a definite need and place for rural electric cooperatives, but he cautioned that the REA and rural telephone programs will "retain maximum support from the general public only as long as they continue to recognize the need for retention and encouragement of private enterprise wherever it measures up to reasonable standards of public service."

The state's senior Senator discussed the power issue before the annual meeting of the Suwannee Valley Electric Co-operative.

"I have never considered REA as a replacement of private industry but only as an agency through which the blessings of electricity can be brought to farm homes which private utilities have not been able to serve," Holland said.

Kentucky

Gas Rate Raise Approved

A $31,326-a-year increase in gas rates for retail customers in Frankfort, Midway, and Versailles was approved by the state public service commission last month.

The commission on July 1st authorized the Frankfort Natural Gas Company, serving the cities, to put the increase into effect November 1st, provided it completed an additional $197,000 in construction by then. A commission spokesman said the firm had notified the commission it would complete the construction in excess of the $197,000 by November 1st.

Louisiana

LP-Gas Measure Adopted

A RESOLUTION calling upon the state legislature to declare the liquefied petroleum gas industry a public utility and to allow a test case in the state supreme court to determine the constitutionality of such a measure was adopted recently by the state public service commission.

A similar move to put the LP-gas dealers under commission control failed in the 1954 legislature before it could get to the courts. The next regular session of the Louisiana lawmakers is not scheduled until 1956, but a special session may be held in the interim.

Sponsored by Commissioner Wade O.

Martin, Sr., the resolution adopted by the commission said the "matter of regulation or nonregulation of the liquefied petroleum gas business has become a political issue in this state."

"In fairness to candidates for the Louisiana Public Service Commission and users of liquefied petroleum gas," the resolution asserted, "the question should be definitely settled."

Maine

Rate Boost Ruled Low

THE state supreme court recently held that electric rate increases granted Central Maine Power Company in November, 1953, by the state public utilities commission were not high enough, and sent the case back to the commission with orders to refigure the rates.

After it received only $1,400,000 of the $3,400,000 annual increase it asked, the company appealed the commission's ruling to the court. It based its appeal on a provision of state law that requires consideration of current replacement value of utility property, less depreciation, in determining a rate base. It cited an earlier ruling by the court in a New England Telephone & Telegraph Company Case that raised the same point.

Massachusetts

Underground Utility Lines Studied

As part of its roundup of information on damage and restoration of services in recent hurricanes, the state department of public utilities announced recently it was making a survey of the cost of placing some power and telephone lines underground.

Bills which would require utilities to place overhead lines underground have been filed for consideration by the 1955 Massachusetts legislature as a result of the hurricanes.

Chairman David M. Brackman of the state public utilities commission said the department will "no doubt" favor any studies the state legislature may wish to have made to determine whether or not it would be in the public interest to eventually put all distribution lines underground. He said the commission also would consider whether the department should make its own recommendations for a cost study as part of its proposals to the legislature.

Washington

Dam Compact Signed

REPRESENTATIVES of the state power commission and the Grant County Public Utility District agreed recently to a "memorandum of understanding" regarding the Priest Rapids dam, clearing the way for preliminary engineering and investigation of the project by the PUD.

The agreement, reached at a meeting with representatives of the Seattle, Tacoma, and Spokane chambers of commerce, does not, however, prevent future court litigation over the dam project, it was said.

The parties agreed that the Washington State Power Commission will take no action objecting to the preliminary permit granted by the Federal Power Commission to Grant County Public Utility District No. 2. Grant County PUD will proceed with preliminary engineering.

Progress of Regulation

Residents of One Exchange Area Refused Service from Another

SEVERAL residents of an exchange area requested the Missouri commission to order a telephone company to furnish service to them from another exchange. The company countered that the future customers were located within the boundaries of the first exchange, which boundary lines were on file with the commission and binding upon all parties.

The evidence showed that, although the petitioners lived within the exchange area, their business was transacted within the city where the desired exchange was located.

Petitioners also claimed the service furnished in the other exchange was not satisfactory and also objected to the payment of a toll charge on calls between that exchange and the city where they carried on their business activities.

The commission was of the opinion that the request should be denied. The service area maps clearly defined the boundaries of the respective exchanges. Once filed with the commission, they were binding unless found to be arbitrary and unreasonable. The commission stated its views on the location of service area boundaries:

> The location of boundaries of service areas for telephone companies involves many considerations. The most important consideration, of course, is the adequacy of service to persons entitled to it. However, serious attention must be given to the engineering, or planning, of the plant with which to render service in order that good and sufficient service can be rendered for the smallest amount of investment possible. Otherwise, duplications of plant may result, or facilities constructed which cannot be used to the best advantage in furnishing telephone service, resulting in higher rates and other disadvantages to the customers of the system as a whole. The proper planning and engineering of telephone plant involve technical skills, and are matters properly within the province of the management's discretion, if wisely and fairly exercised.

Since exchange boundaries were fixed at definite locations, the commission felt that it was inevitable that certain persons would be served by a particular exchange and their neighbors by another. The commission then went on to say:

> This, however, does not, ipso facto, result in an undue preference for, or discrimination against, any person, and once such boundaries have been ap-

proved, they should not be disturbed unless it is clearly shown that they are arbitrary and unreasonable. In our opinion the petitioners have not shown in this case that the boundaries, as drawn, are improper or that they (petitioners) are being unduly discriminated against by the location of said boundaries.

Wilkening et al. v. Southwestern Bell Teleph. Co. Case No. 12,714, July 27, 1954.

Customer Deposits Offset against Working Capital

A NATURAL gas company was authorized by the Wyoming commission to increase rates in order to overcome increased operating expenses for wages, taxes, and materials. In determining that net investment cost should be used as the rate base, the commission quoted with approval the following passage from a previous case:

> We deem it desirable and expedient to set forth in our opinions in major cases, the method or standard used in determining the reasonableness or unreasonableness of the rates therein proposed or involved. We have approved net investment cost as a rate base standard in determining what are just and reasonable rates for similar utilities . . . Briefly, such a rate base is described as consisting of the average investment in plant (original cost) devoted to utility service, less average depreciation reserves, plus average investment (original cost) in materials and supplies, plus an allowance for cash working capital. We approve this type of rate base because we think it is fair to both the patrons of a utility and its investors; because it is practical and easily understood; because it is used by other regulatory bodies, not otherwise bound by statute; and finally because it has been approved by the courts.

An allowance for working capital sufficient to cover a 45-day period, in an amount equal to one-eighth of annual operating expenses, not including taxes, interest, and depreciation, was included in the rate base. However, all but 5 per cent of moneys deposited by the customers to guarantee payment of current service bills was offset against this allowance. The commission felt that, since the amount of such deposits had remained fairly constant in the past, the funds were available to the company for investment in materials and supplies and for use as cash working capital.

A straight-line basis for depreciation of 3 per cent per year was considered fair to both the company and its customers. The increase was designed to provide a return of 6.2 per cent, which the commission considered fair and reasonable. *Re Northern Utilities Co. Docket No. 9257, July 30, 1954.*

Commission Denies Co-operative Permission to Enter Telephone Business

THE Kansas commission refused to allow a co-operative to go into the telephone business. The co-operative was newly organized without prior experience in the field. It had contracted with a telephone company to purchase certain exchanges.

The company desired to sell the prop-

erties in order to consolidate most of its operations around its general office. It had a continuing program for service improvements and was engaged in metallizing rural lines on the exchanges under consideration.

The co-operative contemplated borrowing substantial sums from the Rural Electrification Administration to finance the transaction and also proposed an ambitious program for converting to dial operation.

The commission entertained grave doubts as to the feasibility and financial soundness of the co-operative's proposal, saying:

> Without experience and by heavy borrowings, and through greatly increased investment for each subscriber, Cimarron Valley seeks to engage in the business of a telephone utility in this area with an obvious low density factor.

The commission said that before it would approve a change in ownership of a public utility, it felt duty bound to find that the venture would be a success under the new ownership. The public interest, the method of financing, and the experience of the new management were important factors in determining the public convenience and necessity.

Concluding that public convenience and necessity would best be served by requiring the company to continue operation, the commission commented on the co-operative's proposed conversion to dial:

> We are not unmindful that Cimarron Valley proposes to convert to dial, if it should be permitted to acquire these properties, but by the same token we are also aware that the costs of that conversion as proposed will be paid and paid only by the public. Further, that it is entirely possible that the investment per customer and the charges therefor would be prohibitive and in some instances a burden to the individual telephone user. Our inevitable conclusion therefore is that the applications herein all should be denied.
>
> In summation, what both applicants have sought here has been the ratification of a business transaction between themselves without any regard to the public convenience, necessity, interest, and welfare.

Re Cimarron Valley Teleph. Asso. Inc. et al. Docket Nos. 46,498-U, 46,499-U, 46,501-U, July 19, 1954.

Unauthorized Operation No Proof of Public Need

A COMPANY possessing a private carrier permit sought to clarify its authority before the Colorado commission. For some time past, the company had been serving an intermediate point on its route and had interpreted its authority as including that point. The carrier also sought, as an alternative to a finding of no authority, extension of its certificate.

The commission was of the opinion that not only was the carrier lacking authority to serve the intermediate point but that the extension should also be refused. A private carrier permit authorizing service between fixed points does not authorize service to intermediate points, the commission held.

Noting that the previous holder of the permit had not included intermediate points in his application, the commission went on to say:

> Apparently, since the establishment of Camp Carson, service has been given

to Camp Carson by applicants. However, that does not give them the right to serve. Illegal operation does not assist us in determining this application for clarification.

The refusal to extend the permit was based on a showing that existing common carrier service was adequate. The proposed extension would tend to impair the efficiency of present service. Although the company had already developed considerable business to the intermediate point, the commission thought that unauthorized operation could not be made the basis of proving public need.

In another application, the company had asked for an extension of its certificate to allow the transportation of government freight to certain points. The commission likewise again refused to grant the authority sought, saying:

> We are not clear as to the need of the government for an additional carrier.
>
> It appears from the evidence—and is not contradicted—that U. S. Transfer Company is now giving to the government a satisfactory service and the only benefit to be derived by the granting of this extension would be to place another bidder in the field if the government so desires. On the other hand, the Colorado statute provides that we will not be permitted to grant an extension or enlargement of a permit if, in our opinion, the granting of same might impair the efficient public service of any authorized motor vehicle common carrier then adequately serving the territory.

Re Colorado Hiway Transport, Inc. Application No. 12908-PP, Decision No. 42977, July 16, 1954; Application No. 12803 - PP - Extension, Decision No. 42978, July 16, 1954.

Other Important Rulings

Certificate Cancellation Void. The Michigan supreme court held that the failure of the commission to follow statutory requirements in regard to notice preceding a hearing on revocation of a contract motor carrier permit rendered the cancellation of such permit void. *Furniture Capital Truck Lines, Inc. et al. v. Michigan Pub. Service Commission et al. (1954) 65 NW2d 303.*

Airline Interchange. The Civil Aeronautics Board, in tentatively approving a proposed 2-way interchange, commented that an interchange proposal involving a route extension requires a more substantial showing of public interest than a proposal which merely involves the conversion of a connecting service to a through service. *Re Eastern Air Lines, Docket No. 1102 et al. Order No. E-8466, June 25, 1954.*

Contract Relating to Crossing Cost. The Missouri commission, in approving the abolishment of a railroad viaduct, held that it had jurisdiction to authorize alteration or abolishment of a crossing, at grade or otherwise, notwithstanding an existing contract between a railroad and municipality with respect to which should pay the expenses of maintaining the crossing. *Re Chicago, B. & Q. R. Co. Case No. 12,-681, June 28, 1954.*

Highway Widening at Crossing. The California commission refused to dismiss a city's application for authority to widen

a highway at a railroad crossing for failure to meet the procedural requirements for condemnation of property where the city merely sought authorization for the project upon such terms and division of cost as might be provided for in an agreement between the city and the railroad but did not seek to exercise the power of eminent domain. *Re City of San Diego, Application No. 35466, Decision No. 50287, July 20, 1954.*

Water Company Return. The California commission held that a return of 6 per cent was just and reasonable for a water company, whereas a return of 6.48 per cent would be excessive. *Re California Water & Teleph. Co. Application No. 34395, Decision No. 50445, August 17, 1954.*

Open Agency Station Discontinued. The Missouri commission, in approving a railroad's request to change a station from an open agency station to a prepaid station with custodian in charge, commented that the primary consideration is not whether the station produces a profit but whether public convenience and necessity require continued operation. *Re Chicago, B. & Q. R. Co. Case No. 12,851, July 20, 1954.*

Titles and Index

Preprints in This Issue of Cases to Appear in
PUBLIC UTILITIES REPORTS

Titles

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CONNECTICUT PUBLIC UTILITIES COMMISSION

Re Connecticut Power Company

Docket No. 8972
August 18, 1954

INVESTIGATION *of increased rates filed by electric company; proposed increase disapproved but increase in smaller amount approved.*

Security issues, § 99 — Capital structure — Debt ratio.

1. The best interest of an electric company and its customers would not be served by maintaining a high proportion of total debt compared with equity capital and surplus where the company's debt ratio has increased from 48.5 per cent to 58.5 per cent, including bank loans, and where, after the company incurs additional bank borrowings, the debt ratio, including bank loans, will be 62 per cent, which debt ratio the company proposes to reduce to 47 per cent by issuing additional equity shares, p. 67.

Return, § 87 — Electric company — Cost of money.

2. A return of 5.8 per cent was held to be reasonable and adequate for an electric company on the assumption that the composite interest rate on outstanding long-term debt and new bonds would be 3.05 per cent, where the cost of outstanding debt capital was 2.98 per cent and the assumed cost of new debt capital was 3.25 per cent, and on the assumption that the company (having no preferred shares outstanding) could be expected to earn on common equity not exceeding 8.1 per cent, with a payout of 80 per cent and a provision for cost of financing and underpricing of 15 per cent, p. 68.

Valuation, § 307 — Working capital — Electric company.

3. An allowance of forty-five days' operating expenses as a measure of working capital for an electric company was approved, p. 71.

Rates, § 351 — Classes of electric service — Burden of increase.

4. The burden of increased electric rates was placed upon residential customers where increases in fuel costs had been borne by commercial and industrial customers, during recent years the price per kilowatt hour to residential customers was down while for commercial and industrial customers the price was higher, usage by residential customers had increased more rapidly than for commercial and industrial customers, a large proportion of a construction program was made necessary by increased usage by residential customers, and these customers had failed to bear a fair share of the return on the plant dedicated to them, p. 74.

Rates, § 381 — Gas — Competitive fuels — Combined electric and gas utilities.

Conclusion by Connecticut commission, in electric rate proceeding, that increases in gas rates, in view of the competitive nature of gas as a fuel for cooking and heating, would serve no useful purpose in increasing the company's earnings, p. 70.

CONNECTICUT PUBLIC UTILITIES COMMISSION

Rates, § 197 — Gas and electric departments.

Recognition by Connecticut commission of the fact that electric utility customers should not contribute a disproportionate share to the return of a company operating electric and gas departments, p. 70.

Expenses, § 122 — Electric company — Pooling agreement — Purchased power.

Discussion of the reasonableness of the cost of power purchased pursuant to a "pooling agreement" used in an interconnected system and power purchased pursuant to a contract governing joint participation in certain steam electric generating units owned and operated by one or other of the parties to the agreement, p. 72.

By the COMMISSION: By a schedule of increased rates filed to become effective June 1, 1954, the Connecticut Power Company, a public service company, as defined in § 5390, General Statutes, Revision of 1949, hereinafter sometimes referred to as the company, seeks to increase its annual revenue by approximately $1,584,000 based on sales for the twelve months ended December 31, 1954. The schedule of increased rates applies only to residential electric customers of the company and results in an increase in revenue of approximately 24 per cent from that class of customer.

Pursuant to § 5409, General Statutes, Revision of 1949, we entered upon an investigation of the need for and the reasonableness of the proposed rate schedule and by our order of suspension and notice of hearing dated February 10, 1954, suspended the operation of the proposed schedule of rates and charges pending our conclusions thereon. For the purposes of this investigation, we assigned the matter for a public hearing at the offices of the commission in Hartford on February 23, 1954. Notice of the pendency of the proposed rate increase and of the time and place of the public hearing thereon was given to the company, to the mayors of all cities, to the first selectmen of all towns, to the wardens of boroughs in the state of Connecticut served by the company, and to such parties as appeared to the commission to have an interest in the proceeding, all as fully appears from this commission's order of notice and return of its secretary thereon, on file. Public notice was given by advertisement in newspapers having general circulation in the area served by the company.

The matter was before us in public hearings on February 23, 24, and 25, April 19, 20, and was concluded on April 21, 1954. At the hearings the company appeared by counsel. The city of Torrington, by its mayor and city attorney, the city of Stamford, by its mayor, various members of the Connecticut State Industrial Union Council (C.I.O.), who are customers of the company, by counsel, and several individual residents of towns and cities served by the company, including Manchester and Torrington, either individually or by representatives, appeared in opposition.

On May 19, 1954, the matter was submitted on the record made at the hearings as supplemented by late-filed exhibits served on all parties of record and on briefs submitted by protestant, C.I.O., and by the company.

The company is engaged in generating, purchasing, transmitting, and distributing electric energy in an area comprising some 718 square miles with a population of some 270,000 located at various parts of the state. The principal communities or vicinities served are Stamford, New London, Middletown, Torrington, Manchester, Thomaston, and the northwest corner of the state. In addition to electric service, the company also supplies natural gas in Stamford, Torrington, and New London areas. The company's generating facilities are relatively limited, being confined for the most part to the Stamford Division, with limited facilities for hydroelectric generation on the Housatonic and Farmington rivers. Most of its energy is purchased from the Hartford Electric Light Company and the Connecticut Light and Power Company under contracts which will be the subject of further discussion below. Natural gas is purchased from the two natural gas pipeline companies which supply Connecticut with gas brought principally from the large southwestern United States gas belt. Some standby and peak-shaving facilities are maintained in the three areas in which gas is distributed.

The proposed increase in residential electric rates would be the first increase in rates for electric service in the history of the company. Prior to the introduction of natural gas, the company sought rate relief for its gas department in 1949. This requested increase was suspended by the commission and after investigation and public hearing was denied and the rates canceled. Re Connecticut Power Co. (1949) Docket 8259, 81 PUR NS 1.

Rate of Return

[1] The company is faced with the necessity of retiring presently outstanding bank loans and of attracting additional capital in order permanently to finance a construction program in which the company is engaged. At the end of 1955 the company's utility plant will have more than doubled since 1945. The total construction program already completed for the years 1952 and 1953 and projected for the years 1954 and 1955 will amount to approximately $26,000,000.

The 1952, 1953 portion of the construction program has been financed in part by bank loans of $9,000,000. These were approved by the commission in Docket No. 8659, on March 24, 1952, and April 16, 1953, in Docket No. 8659, and extensions were approved in Docket 8943, March 12, 1954. To finance the cost of this program, including the refinancing of the $9,000,000 of outstanding temporary bank loans, the company proposes to issue and sell at least $15,000,000 of securities in the latter part of 1954 or early in 1955 and, after such refinancing, to undertake additional temporary borrowings in 1955.

The company maintains that it has been able to finance its construction program to date by bank loans but that it will be unable to fund the outstanding bank loans by permanent debt financing or by the issuance of additional equity shares without an improvement in the company's earnings. The company's debt ratio has increased from 48.5 per cent in 1950 to 58.5 per cent including bank loans in 1953 and by 1954, after the company incurs additional bank borrowings of some $5,-

500,000, the debt ratio, including bank loans, will be 62 per cent. The company proposes to reduce this debt ratio in 1955 to 47 per cent. Despite the temporary tax advantage which would result from high debt ratio, sound financing requires that the company's capitalization be more flexible than a high debt ratio permits. We reject the argument raised by C.I.O. that it would be to the best interest of the company and its customers to maintain a high proportion of total debt compared with equity capital and surplus.

The company maintains that its earnings have reached a point where it will be unable successfully and economically to market the proposed $7,000,000 in bonds and $8,000,000 in common capital stock in the years 1954 and 1955 unless there is some improvement in the company's earnings. Its position is that the present level of rates and charges are yielding revenues which fail to provide it with sufficient earnings after operating expenses, depreciation, and taxes to maintain its attractiveness as an investment opportunity and assure the success of its financing operations.

[2] The company's witness claims that it should earn 6.25 per cent on its rate base in order to maintain its financial integrity and assure the success of its financing. We examine the claimed cost of money to the company to determine whether such a rate of earnings is necessary.

The total annual cost of outstanding long-term debt capital, including conversion serial notes, is 2.98 per cent. With this calculation we are in agreement. Witness would assign a rate of 3.25 per cent as a reasonable cost of prospective debt capital and arrive at a figure of 3.05 per cent for the composite annual cost of present and prospective debt capital.

The company has been rated Triple A by the rating services on all of its outstanding issues and generally has enjoyed a good credit rating. The present market for bond money is vigorous and Triple A companies generally are successful in marketing new bond issues at rates lower than 3.25 per cent. Nevertheless, this company is relatively small compared with the ten or eleven generally recognized Triple A utilities. Moreover, it has a high debt ratio and relatively low coverage for its bond interest. For example, coverage for nine Triple A companies cited by company's witness averages 5.3 times and for Double A companies averages 4.1 times. This company earned its total interest charges in 1953 3.1 times, while it claims that in 1954 it will earn total interest charges 2.6 times without rate relief.

We feel that it is impossible to assess these various factors with sufficient accuracy, however to fix a definite single value for future debt capital and because of the unpredictable nature of the future bond market assume that the cost for future borrowings will be about 3.25 per cent, on which basis the composite interest rate on already outstanding long-term debt and new bonds will be about 3.05 per cent.

The company has no preferred shares outstanding and the balance of its capital structure is composed of common capital stock and earned and capital surplus. Company witness emphasizes the relatively lower rate of

earnings presently experienced and the high debt ratio prevailing for this company compared with the average for the electric utility industry of approximately 38 per cent. It should be pointed out, however, that the electric utility industry generally has approximately 12 per cent of its total capitalization in preferred shares which constitute a prior claim on earnings.

Witness also emphasizes the relatively small size of this company and the fact that earned surplus account is equivalent to only 1.4 per cent of the annual requirement for dividends on common stock while the average for the entire electric utility industry is 2.75 per cent and for the ten other Triple A companies is 3.5 per cent.

Despite this unfavorable picture, however, it is undeniable that the company's shares have enjoyed a low earnings-price ratio for many years and even at the time of issuance of this finding the price of the company's shares had reached a point where they were selling to yield approximately 5 per cent. To what extent the market was discounting the effect of this commission's consideration of the company's request for higher rates is difficult to estimate. It is sufficient to observe, however, that the company's shares have sold to yield at a rate which compares favorably with all electric utilities and at the time of the issuance of this finding compared favorably with the yield of stocks of all electric utilities with stock in the hands of the public. While witness emphasizes the high pay-out ratio of this company, this again has been characteristic of the company and seems not to have influenced the market evaluation of the company's shares unduly. The company's relatively high equity ratio should react favorably in weighing an investor's evaluation of the company's risk. Moreover, the expected improvement in the company's gas business with natural gas is also a favorable factor.

After considering these various intangible factors, both favorable and unfavorable, we feel that an estimate of 5.5 per cent is reasonable for the dividend market price ratio of the company's shares. Assuming a payout of 80 per cent, which is higher than urged by the company but substantially below the company's actual experience for some years, and assuming a provision for cost of financing and underpricing of 15 per cent, a fair measure for the rate at which the company could be expected to earn on the common equity proportion of its rate base should not exceed 8.1 per cent.

The payout ratio used above is considerably lower than the rate which has characterized the company since at least 1948. Although it is somewhat higher than the payout ratio for the ten Triple A utilities used by company witness, we point out again, however, that Connecticut utilities have been characterized by a relatively high payout ratio and that such has not apparently affected the company's shares adversely in the minds of investors.

Combining the rate of earnings on long-term debt and on common capital stock plus surplus found reasonable above in the proportions at which both will be reported in the company's balance sheet after the financing program is completed in 1955, we find a fair cost of capital to the company will be approximately 5.72 per cent.

Rates which provide a rate of return

on rate base at least equal to 5.72 per cent clearly cannot be said to be unreasonable. We find that a return of 5.8 per cent, approximately, is reasonable and adequate to compensate the owners for the risks undertaken by them, to meet all interest and provide amply for any adverse effects not readily measurable by statistical means.

Rates of Return in Electric Department and Gas Department

Although the company has persuasive reasons which argue against increasing gas rates above the levels which presently obtain, these reasons result principally from the closely competitive nature of gas as a fuel for cooking and heating.

From this admitted fact stems one of the problems in this proceeding. For the fair rate of return found above is fixed without reference to the fact that the company's gas department provides approximately 11.9 per cent of the company's total revenues, but it has been unable in the year 1953 and will not be able in the estimated year 1954 to meet from gas operating revenues the total operating expenses, depreciation, and taxes allocated to the department. As a result, the rate of return earned by the electric department is somewhat higher than that found reasonable for the entire company in order that the entire property may earn at the rate which we find reasonable above. Although commission decisions are virtually uniform that electric and gas properties as a matter of theory should earn their own way and that revenues from one department should not be used to "subsidize" the other, it must be recognized that in this case at least the gas business stands at the threshold of a period of development which promises to make that department more nearly self-supporting than ever before.

The company's gas business is improving. In 1953 the company incurred a loss of $381,574 in its gas department, in 1954 it estimated the loss will be reduced to $153,000, while in 1955 it anticipates a loss in the gas department of only $12,000. It is reasonable to assume, therefore, that with rates left undisturbed and with sales promoted with the same energy which has characterized its recent activities, the revenues from the gas department will soon begin making a material contribution to the company's rate of return.

The company must issue additional securities soon to fund its outstanding bank loans and attract additional capital for its construction program. It would have difficulty marketing additional bonds except at uneconomic rates of interest or issuing and selling capital shares except at prohibitive cost. In view of the need for the company to restore its earnings to a point where the over-all rate of return will be in the area found reasonable above, the practical economics prove to the satisfaction of this commission, at least, that increases in gas rates at this time would serve no useful purpose in increasing the company's earnings. The earnings from the gas department can best be improved through volume of sales.

In recognition of the fact that electric utility customers should not contribute a disproportionate share to the return of the total company, however, we propose to examine carefully as soon as possible after the anniversary

date of this finding and order the annual experience for this company under the schedule of rates and charges hereinafter found reasonable. At that time the experience of the gas department will be carefully analyzed and if it should appear that revenues from that department are increasing to a point where the level of earnings from the electric customers is more than enough to provide a fair return on the over-all company rate base, attention will be given to appropriate modifications in the then effective schedule of rates and charges for electric service.

Rate Base

The rate base upon which the company should be allowed to earn at the above rate of return was shown for 1954 to be $53,508,000, according to the company. This is a net increase over 1953 of $6,230,000.

The increase in 1954 is due to the expenditures for construction during 1954 of approximately $8,772,000, including the estimated cost of completing projects authorized but incompleted on December 31, 1953. These construction projects during 1954 are part of a construction program for the 2-year period 1954–1955 totaling about $14,569,000. Included in the projects are measures designed to improve transmission and distribution facilities in the electric department. Other projects include increasing capacity of substations, and making extensions of existing facilities to accommodate new customers and to handle the increased loads resulting from greater use by existing customers. In addition, considerable funds will be expended to improve and make more efficient the company's present gas facilities and render them more effective for use with the newly introduced natural gas.

We show below in Table I the Rate Base of the company, as at December 31, 1954, which includes the work under construction above described, as at December 31, 1954, and an allowance for working capital, fuel, reserves, and materials and supplies:

TABLE I

Rate Base

December 31, 1954

Utility Plant	$64,008,000
Less: Utility Plant Acquisition Customers' Contribution	75,000 197,000
Net	$63,736,000
Add: Working Capital	1,705,000
Fuel Reserve	656,000
Materials and Supplies	928,000
Gross Investment	$67,025,000
Less Reserve for Depreciation	13,517,000
Rate Base	$53,508,000

[3] A provision for forty-five days' operating expenses as a measure of working capital was requested by the company. We find this allowance a fair and reasonable estimate.

An allowance of $656,000 for fuel expenses in 1954 is sought based on a four months' supply of fuel normally kept at hand. This amount represents the cost of oil and coal in storage and allows a sufficient margin of safety to take care of emergencies which might arise. There is also included a provision for materials and supplies amounting to $928,000, based on estimated inventory December 31, 1954. These estimates do not appear out of line, and we find that an allowance of $1,584,000 for fuel expense and materials and supplies is no more than just and fair.

The rate of return found reasonable

above has been calculated on a capitalization which contemplates the proportions of debt and equity capital which will exist for the reasonably anticipated future. This rate of return should enable the company, under efficient and economical management, to earn on dollars invested in used and useful property at a rate sufficient to support the existing capital structure and to attract additional capital as needed at economical terms, thus benefiting both ratepayer and investor.

Experience of the Company under Present Rates

Company submitted its estimated experience for the year 1954, the year through which it is presently passing and on which we feel the company's rates can best be measured (Re Connecticut Light & P. Co. (1953) Docket 8846, 2 PUR3d 379, 388), on the basis of present rates effective for a full year and proposed rates effective June 1st.

A more accurate and representative measurement of the adequacy of the company's rates during a 12-month period requires that the company's experience for the year 1954 be restated to reflect twelve months' experience under the proposed rates. We have accordingly adjusted upward the company's revenues to reflect the increase of 24 per cent, the average rate of increase.

There are included in the company's operating experience for 1954 certain increases in operating expenses. It is notable that during the period 1948 to 1953, inclusive, the period in which The Connecticut Power Company operated as presently constituted, the gross operating revenues increased approximately 40 per cent while utility operating income increased 43.5 per cent. In 1954, however, the company estimates its expenses will increase rapidly and evidence and testimony discloses that this increase will be due in part to the increased cost of power purchased from Hartford Electric Light Company, pursuant to a so-called "pooling agreement" used in the interconnected system of the Hartford Electric Light Company and The Connecticut Power Company, and power purchased from Connecticut Light and Power Company, pursuant to a contract between Connecticut Power Company and The Connecticut Light and Power Company governing the joint participation by those two companies in certain steam electric generating units owned and operated by one or the other of the two parties.

The agreement with Hartford Electric can best be understood by comparing it with the results which would obtain if a separate generating and transmission company were organized which owned and operated the production and transmission facilities of the two companies which have been designated as joint facilities and that the fixed and operating expenses of this hypothetical generating and transmission company were allocated to the two companies in the ratio of their individual loads to be the combined load.

In addition to the elements of expense of the so-called demand group, the energy expense is allocated in proportion to the kilowatt-hour use of each company.

The critical decision involved in the pooling agreement is what facilities should be considered as joint facilities. The contract provides, among other

things, that the rate of return on the jointly used facilities will be 5 per cent. It is clear that since a 5 per cent return on that plant included in the joint facilities is recovered through payments made by one company or the other, and are recovered in toto from the customers, that on that portion of the plant, at least, which is included in joint facilities, the risk is somewhat minimized.

The pooling agreement enables both companies to realize the benefits of plant which has been installed by one company or the other and duplicate facilities are avoided. Economies which result from large capacity, more efficient equipment, are thus realized by both parties. From the study which has been made of the present contract it appears that the payments made under it are fair for rate-making purposes.

The operating expenses attendant on the agreement with The Connecticut Light and Power Company result from the need by this company to purchase energy in the Stamford division to accommodate the increased load. Under the terms of this particular contract The Connecticut Light and Power Company has hypothetically reserved to The Connecticut Power Company approximately one-sixth of the capacity of its new 75,000-kw unit at the Devon station, together with necessary fuel supplies and miscellaneous equipment. This contract likewise has been carefully examined and seems fair to both parties for, among other reasons, the fact that the equipment reserved is one of the most efficient of the new units on The Connecticut Light and Power Company's system.

Since there are included in both of these agreements "built-in" rates of return on the investment cost which, as mentioned above, are recovered in toto from the customers, it should be pointed out that to this extent, at least, The Connecticut Power Company's risk is minimized and the investment character of its securities enhanced. It is impossible, of course, to fix a precise value on such an intangible factor. Clearly, however, it operates to remove any doubt as to the reasonableness of our decision herein in fixing a rate of return no higher than 5.8 per cent.

The balance of the increases in operating expenses have been carefully examined and appear reasonable for rate-making purposes and have been so allowed.

On the basis of 1954 experience, therefore, it appears that the company's operating income will be $2,515,000 approximately, representing a rate of return on rate base found reasonable above of 4.79 per cent.

The full year 1954 under proposed rates, however, will yield operating income of about $3,264,000 equivalent to a rate of return of 6.19 per cent.

We have found above that a rate of return of 5.8 per cent is just and reasonable for the company. We find, therefore, that the present schedule of rates and charges is less than just and reasonable, since it yields operating income considerably lower than 5.8 per cent and further find that the proposed rates are more than just and reasonable to the extent they yield operating income in excess of $3,100,000 based on 1954 experience. This results in a reduction in the increase sought by the company from $1,584,000 annually to $1,138,884.

Allocation of Increased Revenues

[4] The company's proposal would place the entire increase on residential electric customers. We have previously explained why some of the increase should not be borne by customers of the gas department at this time. The increase to residential customers would correct what appears to be a somewhat unfavorable relationship between the existing residential rates and the commercial and industrial rates.

The company points out that increases in fuel costs have been borne by commercial and industrial customers through fuel charges but that such fuel charges have had a negligible effect on residential customers because a higher base price of coal is used in the fuel adjustment formula which applies to residential customers. Since 1941 the price per kilowatt hour to residential customers is down 30 per cent while for commercial and industrial customers the price per kilowatt hour is slightly higher than in 1941. The record discloses that usage by residential customers has increased more rapidly than for commercial and industrial customers and that a comparison with neighboring utilities shows average revenues per kilowatt hour billed for residential customers are lower while commercial and industrial are somewhat higher.

A large proportion of the construction program on which the company is engaged is made necessary by increased usage by residential customers. These customers have failed to bear a fair share of the return on the plant dedicated to them. Costs per kilowatt of installed capacity have increased sharply during the period when this increase in usage has taken place. In addition, residential customers have not borne increases in fuel costs to the same extent as commercial and industrial customers.

We feel, therefore, that the increases authorized herein, which are lower than those sought by the company, may reasonably be placed upon residential customers. Our order below [omitted herein] provides for the cancellation of the existing rate schedules and for the filing of revised schedules to become effective on approval by the commission and for review of the company's operating experience to observe the effect of improvements in the experience of the company's gas department.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Southern Telephone Company of Pennsylvania

v.

United Telephone Company of Pennsylvania

Additional Plaintiffs: Middleburg Rural Telephone Company and Borough of Greencastle

Complaint Docket Nos. 15285, 15286
June 1, 1954

COMPLAINT *by telephone companies that rates proposed by another company are unjust and unreasonable; complaint dismissed and tariff approved.*

Rates, § 130 — Adequacy of service as issue.

1. The adequacy of a company's service will not be considered at issue in a rate proceeding, p. 79.

Rates, § 539 — Telephone companies — Flat rates for local exchange service.

2. Flat rates charged by a telephone company for local exchange service cannot be considered compensatory since the charges are generally set at a nominal value for the accommodation of rural telephone groups operating service line facilities beyond a given base rate area, p. 80.

Rates, § 582 — Telephone company — Rural service line — Exchange service rates.

3. A toll collection arrangement entered into by a telephone company and a rural service line company should not be considered in determining a uniform rate for a class of service available to all rural telephone companies operating through the exchanges, since such arrangement embraces local operating conditions only, p. 80.

Telephones, § 14 — Rural service line — Compensation for collecting toll charges.

4. A rural service line company is not entitled to compensation from a telephone company for services performed in collecting toll charges from subscribers where the rural company does not own, operate, or maintain toll trunk facilities or central office equipment for handling the transmission of toll messages, p. 80.

Rates, § 532 — Telephone company — Local exchange rates.

5. A telephone company should be authorized to increase local exchange rates where such increase is equitable and reasonable, p. 82.

Valuation, § 299.1 — Working capital — Accrued taxes.

6. No allowance should be made for working capital where the company's accrued taxes more than equal the amount needed, p. 87.

Return, § 20 — Rate of return — Stipulation by parties.

7. The commission will accept a stipulation by the parties to a rate case that a company is entitled to a return of 6 per cent where such stipulation, although not binding, does not appear unreasonable, p. 87.

Return, § 111 — Telephone company — Increased local exchange rates.

8. A telephone company's proposed local exchange rates are not excessive, unreasonable, or discriminatory where the increase will produce revenues $18,000 in excess of 6 per cent of the lower measure of value considered and $81,000 less than 6 per cent of the higher measure of value and a finding of fair value, if made, would justify the proposed rates, p. 89.

By the COMMISSION: On April 28, 1951, The United Telephone Company of Pennsylvania, respondent, filed with the commission Supplement No. 17 to its Tariff Pa. P. U. C. No. 13 and Supplement No. 9 to its Tariff Pa. P. U. C. Toll No. 1, proposing increases, decreases, and changes in its then existing rates and charges for local exchange service and toll service, effective June 30, 1951.

On June 29, 1951, complaints were filed by Southern Telephone Company of Pennsylvania (Southern) and Middleburg Rural Telephone Company (Middleburg) docketed at C. 15285, and the Burgess and Town Council of Greencastle (Greencastle) docketed at C. 15286. These complaints allege that the rates proposed for telephone service rendered by respondent are unjust and unreasonable and in violation of § 301 of the Public Utility Law.

The grounds of the complaint of Southern and Middleburg include, inter alia, the following:

(a) That respondent proposes to double its rates for exchange switching service, such increase being so arbitrary as to make the furnishing of telephone service by complainants to their subscribers economically burdensome.

(b) That complainants collect toll charges from their subscribers for respondent without commission or charge to respondent and complainants believe that this service should be considered in computing respondent's proposed rates for exchange switching service.

(c) That the quality of respondent's service is so poor as to make the existing rates adequate for the service rendered.

The grounds of the complaint of Greencastle include, inter alia, the following:

(a) That respondent proposes to increase telephone rates in the borough of Greencastle approximately double the amount of increase for similar telephone service in the borough of Chambersburg, a much larger community.

(b) That the rate increase to Greencastle subscribers will raise their rates considerably higher than the rates applicable in other communities of comparable size and that the alleged advantage of free telephone service to Waynesboro is offset by inadequate facilities between Greencastle and Waynesboro making it impossible to place calls to Waynesboro on many occasions each day.

(c) That the quality of service ren-

dered by respondent in Greencastle is so poor as to make the existing rates entirely adequate.

On July 16, 1951, respondent's counsel filed motions to strike or dismiss the complaints on the grounds that they violate Rule 26 of the commission's rules of practice by the inclusion therein of complaints against rates and service; also that the complaint grounds are improper and insufficient in substance. The commission subsequently denied respondent's motion to strike or dismiss these complaints.

At a hearing held on June 2, 1952, five witnesses testified in behalf of complainants and three witnesses for respondent. Among the exhibits offered in evidence for respondent were comprehensive studies of depreciation, trended original cost, and applicable depreciation reserve requirements.

On November 7, 1952, the record in these proceedings was supplemented by a stipulation, filed by opposing counsel, that the commission may, for the purpose of disposing of these cases, accept as the fact proven that respondent is entitled to a return of 6 per cent.

Tariff Supplements

Respondent's tariff supplements, which became effective on June 30, 1951, provide in general for:

(1) Increases in basic rates for all classes of local service.

(2) Increases in rates for business and residence extensions, wiring plans, in mileage charges for extension, Morse, leased and tie lines, in flat rates for private branch exchange switchboards and stations, in charges for moves and changes, in service connection charges and in miscellaneous service and installation charges.

(3) Increases resulting from withdrawal of free local service between certain exchanges and the substitution therefor of toll service.

(4) Decreases resulting from enlargement of free local service areas and the elimination of toll service therein.

(5) Decreases resulting from enlargement of base rate areas of certain exchanges.

(6) Decreases to new customers resulting from a revised basis of determining line construction and attachment charges applicable to service extensions outside base rate areas.

These tariff supplements were apparently designed by respondent in a form to give recognition to the number of subscribers in each local calling area and to provide equitable rate differentials for areas of different sizes and for different classes and grades of service.

Respondent's Exhibit No. 1 shows in tabular form the local exchange rates established by respondent's tariff supplements effective June 30, 1951, as follows: [Table omitted.]

The above local exchange rate schedule, while providing increases for all classes of local service, eliminates a wide variation in local rates formerly effective in different sections of respondent's territory and establishes a uniform rate structure for the several classes and grades of service according to the number of subscribers in each local calling area.

The application of uniform local exchange rates together with increased charges for miscellaneous services and supplemental equipment will produce

additional gross revenue of approximately $396,000, annually, which represents approximately 12.7 per cent of respondent's gross operating revenues for the twelve months ended September 30, 1951.

In regard to the need for increased revenue, a witness for respondent made the following statements:

" . . . we have had a remarkable growth since the war. This has of course brought in greatly increased income, but our expenses have increased faster than income with the result that our net return has gone down.

"We are facing a continuing demand for service that must be met by expansion of or addition to our plant . . . We must have more money to build more plant and we must be able to show satisfactory earnings to attract the new investment to do this construction job.

"In the way of costs, . . . the costs of materials have doubled generally, and in some cases have tripled since the war. Wages and salaries have increased in general in line with economic trends. . . .

"In the matter of taxes, . . . since 1947, our federal income tax rates have increased from 38 per cent to 47 per cent, to 52 per cent. State income taxes were increased last year from 4 per cent to 5 per cent."

Respondent

Respondent was incorporated as "Cumberland Valley Telephone Company of Pennsylvania" on December 28, 1915, under the laws of the commonwealth of Pennsylvania. Respondent's present corporate name, "The United Telephone Company of Pennsylvania" was adopted on May 5, 1931.

Respondent furnishes local exchange telephone service and long-distance or toll telephone service throughout its charter territory which comprises all of Franklin and Perry counties and portions of Adams, Bedford, Blair, Centre, Clinton, Cumberland, Dauphin, Fulton, Huntingdon, Juniata, Mifflin, and York counties. Respondent also furnishes toll service to points outside its territory by means of interconnections with The Bell Telephone Company of Pennsylvania, American Telephone and Telegraph Company, and several independent telephone companies.

During the 6-year period immediately following the war, respondent's growth was substantial. According to respondent's figures for the period from December 31, 1945, to December 31, 1951, respondent gained 30,147 telephones and added $5,049,228 to its investment in telephone plant in service. Respondent's testimony in this connection, broken down by years, follows: [Table omitted.]

Respondent expects its growth to continue indefinitely at the rate of 5,000 telephones per year, unless a major upset occurs in the national economy. During the years 1949, 1950, and 1951, respondent received 32,129 new applications for service, or an average of over 10,000 new applications per year. During the same 3-year period, respondent's construction program totaled more than $1,800,000, annually. Respondent's testimony indicates that its anticipated requirements for new plant construction should not decrease in the foreseeable future.

The September 30, 1951, capitalization of respondent comprised $4,500,000 of first mortgage bonds which was 53.6 per cent, $1,500,000 of preferred capital stock which was 17.8 per cent, and $2,395,007 of common capital stock and earned surplus which was 28.6 per cent of the total capitalization of $8,395,007.

Respondent's parent company, United Utilities, Incorporated, a Kansas corporation, owns all of respondent's common stock and thereby exercises complete control over respondent's operations.

Scope of Complaints

Examination of the two formal complaints instituted against respondent's tariff supplements discloses (1) that both complaints concern respondent's Greencastle local exchange tariff which constitutes only one of the 58 local exchange tariffs which became effective on June 30, 1951, and (2) that both complaints, while protesting against respondent's increased telephone rates, make serious reflections upon the quality or adequacy of respondent's telephone service in the Greencastle and Waynesboro exchange areas.

[1] In a rate proceeding, the adequacy of the service rendered by respondent cannot be considered at issue inasmuch as the purpose of the proceeding is to adjudicate the fairness or reasonableness of respondent's rates. Therefore, we will not dwell on the matter of service inadequacy except to note that the record in these proceedings includes statements by respondent's witness to the effect that service improvements are under way to relieve the unsatisfactory service conditions experienced by complainants' witnesses.

Henceforth, consideration will be given to the complaint allegations relating to respondent's increased rates in the Greencastle exchange area. Respondent's Greencastle Local Exchange Tariff, effective June 30, 1951, lists the following monthly flat rates which are compared with the corresponding rates in effect prior to June 30, 1951:

Class of Service	Individual Line		2-Party Line		4-Party Line	
	effective 6/30/51	prior to 6/30/51	effective 6/30/51	prior to 6/30/51	effective 6/30/51	prior to 6/30/51
Business	$5.75	$4.50	$5.25	$4.00	$4.75	$3.50
Residence	3.50	3.00	3.00	2.50	2.50	2.00

Class of Service	Multiparty Line		Service Station	
	effective 6/30/51	prior to 6/30/51	effective 6/30/51	prior to 6/30/51
Business	$4.75	$3.50	$1.00	$0.50
Residence	2.50	2.00	1.00	.50

The complaints of Southern and Middleburg concern only respondent's increased rates applicable to "Service Stations" (exchange switching service). As shown by the above comparison, "Service Station" rates were increased from 50 cents to one dollar per month, effective June 30, 1951.

Southern is a small rural telephone company operating approximately 250 telephones through respondent's exchanges at Greencastle, Marion, Chambersburg, and Mercersburg. Most of Southern's telephones are connected to respondent's Chambersburg exchange.

Middleburg, also a small rural tele-

phone company, operated prior to April, 1953, approximately 115 telephones in Franklin county through respondent's Greencastle exchange. On March 30, 1953, the commission approved the acquisition by respondent of Middleburg's telephone property and rights and, subsequently, Middleburg transferred its patrons to respondent and ceased operations. Accordingly, Middleburg's complaint herein is moot and will be dismissed.

Southern's president and principal stockholder testified that the 50-cent increase in respondent's rates for exchange switching service is economically burdensome and that such increases would compel Southern to increase its subscriber rates. This witness stated that Southern's monthly rate for multiparty residence service of $2.25, if increased by 50 cents per month, would be 25 cents higher than respondent's $2.50 monthly flat rate for multiparty residence service. We consider this contention to be without merit.

[2] Examination of respondent's tariff supplements, effective June 30, 1951, discloses that in all instances where the local exchange tariff includes rates for "Service Stations," such rates, without exception, are uniformly increased from 50 cents to one dollar per month and are applicable to all rural telephone companies operating through respondent's exchanges.

Respondent's testimony in support of the increased "Service Station" rates explains that these rates have been increased so that rural telephone companies bear their share of the increased rate burden made necessary by the higher cost of furnishing telephone service experienced by respondent.

Monthly flat rates for "Service Stations" cannot be considered as compensatory telephone rates since the charges for local exchange switching service are generally set at a nominal value for the accommodation of rural telephone groups operating service line facilities beyond a given base rate area.

We are unable to find from this record that increased charges for exchange switching service are unreasonable as a rate for service, particularly in view of respondent's statement that certain of its operating expenses have substantially increased since 1946.

[3, 4] Southern's witness also testified in support of its complaint that respondent, in computing its rates for exchange switching service, should consider the service performed by Southern in collecting toll charges from its subscribers for respondent's account without commission or charge.

We can see no real merit in this contention from a rate-making point of view. This is a local matter subject primarily to respondent's managerial discretion. Any toll collection arrangement, where entered into by respondent and a rural service line company, would embrace local operating conditions only and would have no bearing on the determination of a uniform rate for a class of service available to all rural telephone companies operating through respondent's local exchanges. But in this specific instance complainant does not own, operate, or maintain toll trunk facilities or central office equipment for handling the transmission of toll messages. It has no exchange personnel and we are of the opinion that com-

plainant's contention that it is entitled to compensation for toll service has little or no merit.

The complaint of Greencastle primarily concerns respondent's increased rates applicable in the borough of Greencastle, since such increases are greater than corresponding increases for similar service furnished by respondent in the borough of Chambersburg, a much larger community, and in other communities comparable in size to Greencastle. However, Greencastle's witnesses offered little direct testimony in regard to increased local exchange rates in Greencastle, but confined their testimony principally to delays experienced in completing calls between Greencastle and Waynesboro.

Cross-examination of respondent's witness disclosed that at the time respondent's rates were filed, 5,737 main telephone stations were included in the Greencastle local service area, broken down by communities, as follows:

	Main Stations
Greencastle	1,380
Marion	156
Waynesboro, Pa.	4,181
Waynesboro, Md.	20
Total	5,737

Respondent's witness stated that, since the Greencastle local service area includes more than 5,000 main telephone stations or subscribers, the local exchange rates of the subscriber band designated as Class 4 apply to all subscribers in the Greencastle local service area. This witness further explained that the number of main telephone stations in the Chambersburg exchange area totaled approximately 5,504, placing that community in the same subscriber band, Class 4, with the same rates being applicable as in the Greencastle and Waynesboro local exchange areas.

The record shows that prior to June 30, 1951, the effective date of the tariff supplements complained of herein, little uniformity existed among the various local exchange rates which then applied in certain portions of respondent's territory. For more than twenty years prior to this rate filing, no major rate increases were made by respondent, and the former local exchange rates were, for the most part, the same as those rates originally inherited by respondent from the fourteen predecessor companies which initially operated in various sections of respondent's present service area.

Respondent's present local exchange rates are classified under four progressive subscriber bands to give recognition to the number of telephones in each local service area and thereby establish a uniform rate structure for the several classes and grades of service furnished by respondent.

The fact that the rates in the Greencastle and Waynesboro exchange areas are now identical to those in effect in the Chambersburg area does not denote that the rates applicable in the Greencastle exchange area are excessive or unreasonable, but rather that the number of subscribers in the Greencastle and Waynesboro local service areas, under the new subscriber band classification, places Greencastle subscribers in the same rate category as Chambersburg subscribers. If respondent's subscribers in the Greencastle exchange area alone, numbering approximately 1,380, were considered as comprising a separate local service area, such subscribers would

fall in subscriber band, Class 2, with correspondingly lower local exchange rates. However, if such were the case, toll charges would then apply on all calls between Greencastle and Waynesboro.

A determination as to whether Greencastle subscribers should be included in the Waynesboro local service area would require up-to-date factual information to show that a natural "community of interest" exists between Greencastle and Waynesboro and also whether the telephone traffic between these points is made up of calls by a large percentage of the subscribers in the Greencastle-Waynesboro area or by a relatively small percentage of such subscribers.

In the course of its telephone operations, respondent should be in possession of this information and should be in a position to best determine what communities should be included in a given local service area. Therefore, we will not question herein the inclusion of Greencastle subscribers in the Waynesboro local service area. We will, however, expect respondent to conduct from time to time traffic studies in this and other local service areas throughout its operating territory for the purpose of establishing, maintaining, or changing local service areas in keeping with natural changes in community of interest brought about by changed conditions with respect to population growth, transportation, or industrial and commercial activity in the several areas served by respondent.

[5] For the purpose of this order, we have confined our review of respondent's increased local exchange rates to the several subscriber bands established by respondent in the instant tariff supplements. We find that the rates, as set up for each subscriber band, are equitable and that the general rate simplification from a tariff standpoint has considerable merit. We further find that the rate inequities complained of herein, between communities of various sizes, stem from the former rate disparity heretofore effective and are not the result of any unreasonableness in the local exchange rates now applicable. Therefore, we will not disturb the local exchange rates established by respondent for the several subscriber bands, nor will we sustain the complaint of Greencastle against the form or pattern of respondent's rate structure.

Irrespective of the limited scope of the complaints considered herein, the institution of these complaint proceedings within the 60-day statutory period has placed the burden of proof upon respondent to show that its tariff rates over all, which became effective June 30, 1951, are just and reasonable and not in violation of § 301 of the Public Utility Law. To this end respondent engaged engineers who submitted for the record a substantial amount of testimony and evidence relative to the value of respondent's telephone property used and useful in its public service. We shall, therefore, proceed to examine respondent's evidence in this connection.

Respondent submitted as exhibits the following evidence of the value of its used and useful property at September 30, 1951:

(1) Original cost at September 30, 1951.

(2) Trended original cost at aver-

age prices for the 9-month period ended September 30, 1951.

(3) Trended original cost at average prices for the 33-month period ended September 30, 1951.

(4) Depreciation reserve on respondent's books at September 30, 1951.

(5) Depreciation reserve requirement applicable to original cost at September 30, 1951.

(6) Depreciation reserve requirement applicable to trended original cost at average prices for the 9-month period ended September 30, 1951.

(7) Depreciation reserve requirement applicable to trended original cost at average prices for the 33-month period ended September 30, 1951.

(8) Materials and supplies (average during the 12-month period ended September 30, 1951).

(9) Cash working capital (average during the 12-month period ended September 30, 1951).

(10) Telephone plant under construction.

Respondent's Exhibit 2 shows the book cost at September 30, 1951, of respondent's total telephone plant in service to be $9,320,500.08, and the depreciation reserve on respondent's books at September 30, 1951, to be $1,731,869.82. Respondent's Exhibit 2 shows the following summary applicable to book cost and depreciation reserve: [Table omitted.]

Respondent's Exhibit 3, a depreciation study; Respondent's Exhibit 4, a trended original cost study; and Respondent's Exhibit 5, a study of depreciation reserve requirement applicable to trended original cost, were prepared for respondent by an independent engineering firm.

Respondent's depreciation study shows the methods used in determining average service life, net salvage and depreciation reserve requirement for each depreciable plant account. Witness for respondent, a valuation engineer, testified that four general methods were used in estimating the average service lives for the various classes of depreciable plant, as follows:

(1) the life span method was used for buildings and central office equipment which comprised 18.3 per cent of respondent's depreciable plant at September 30, 1951.

(2) the indicated survivor method was used for station apparatus and private branch exchanges, for the pole line and wire accounts, for furniture and office equipment, and for certain cable accounts; which property represented 75.9 per cent of respondent's depreciable plant at September 30, 1951.

(3) the actuarial method was used for the motor vehicle account based upon respondent's recorded mortality experience.

(4) the judgment method was used for the remaining accounts which represented 3.7 per cent of respondent's depreciable plant at September 30, 1951.

It is noteworthy that average service lives applicable to approximately 76 per cent of respondent's depreciable plant were estimated by means of the indicated survivor method and that average service lives applicable to less than 4 per cent of respondent's depreciable plant were estimated by the judgment method.

Respondent's engineer testified that

after the average service life of the plant in the various depreciable plant accounts at September 30, 1951, had been determined, estimates were made of the percentages of net salvage which would be realized from that plant upon retirement from service and based upon these two factors, the annual depreciation rate for each account was computed.

Schedule 39 of Respondent's Exhibit 3 shows the following summary of estimated average service life, estimated percentage of net salvage and the resulting annual rate of depreciation for each of respondent's depreciable plant accounts at September 30, 1951:

TABLE IV

SUMMARY OF AVERAGE SERVICE LIFE, NET SALVAGE AND ANNUAL DEPRECIATION RATE

Account Number	Class of Plant	Average Service Life in Years	Net Salvage %	Annual Depreciation Rate—%
201	Organization			
207.01	Right-of-way Exchange	50.0	0.0	2.00
207.02	Right-of-way Toll	50.0	0.0	2.00
211	Land			
212	Buildings	42.7	26.8	1.71
221.01	Central Office Equipment—Manual	12.4	35.0	5.24
221.03	Central Office Equipment—Dial	24.7	5.0	3.85
231	Station Apparatus	6.0	85.0	2.50
232	Station Installations			
233	Drop and Block Wires			
234	Private Branch Exchanges	8.0	77.0	2.88
235	Booths and Special Fittings	23.5	0.0	4.26
241.01	Pole Lines—Exchange	17.5	(2.0)	5.83
241.01T	Pole Lines—Toll	15.5	1.0	6.39
242.01	Aerial Cable—Exchange	27.0	24.0	2.81
242.01T	Aerial Cable—Toll	33.0	35.0	1.97
242.02	Underground Cable—Exchange	39.0	15.0	2.18
242.02T	Underground Cable—Toll	40.0	15.0	2.13
242.03	Buried Cable	40.0	0.0	2.50
243.01	Aerial Wire—Exchange	20.5	(2.0)	4.98
243.01T	Aerial Wire—Toll	24.0	44.0	2.33
244.01	Underground Conduit—Exchange	60.0	0.0	1.67
261	Furniture and Office Equipment	36.0	18.0	2.28
264.01	Motor Vehicles	9.5	50.0	5.26
264.05	Tools and Other Work Equipment	25.0	5.0	3.80
264.06	Storeroom Work Equipment	25.0	5.0	3.80

( ) denotes negative figure—net salvage for this account is taken as minus 2%.

In the development of reserve requirement or accrued depreciation for the various depreciable plant accounts, respondent's engineer stated that certain accounts were studied by the retrospective method and that other accounts were studied by the prospective method (life table). Examination of Respondent's Exhibit 3 shows that reserve requirement applicable to rights of way, underground cable-toll, buried cable, tools, and other work equipment, and storeroom work equipment was developed by the retrospective method, and that the prospective method was applied to the accounts applicable to buildings, central office equipment, station apparatus, private

branch exchanges, booths and special fittings, pole lines, aerial wire and cable, underground cable-exchange, underground conduit, motor vehicles, and furniture and office equipment.

Respondent's depreciation study shows that the total estimate reserve requirement for the plant accounts which are depreciable for accounting purposes was found to be $1,783,039.36, or 21.01 per cent of the indicated original cost of plant in service in those accounts at September 30, 1951. The total estimated reserve requirement for all depreciable plant accounts, including Station Installations and Drop and Block Wires, was found to be $1,811,935.01, or 19.95 per cent of the indicated original cost of plant in service in those accounts at September 30, 1951.

In our opinion respondent's depreciation study is sound and comprehensive. We will accept the results of such study for the purpose of this case.

The following is a summary of respondent's depreciation reserve requirement as developed in Respondent's Exhibit 3: [Table omitted.]

Respondent's Exhibit 4, a trended original cost study, develops estimates of the original cost which would have been incurred by respondent if the price levels that prevailed during the 9-month and 33-month periods ended September 30, 1951, had been the price levels, respectively, during each of the years in which respondent's utility plant in service at September 30, 1951, was installed or constructed. This exhibit shows the methods and sources of cost indexes used in the development of the trended original cost estimates. The original cost of organization, rights of way (exchange and toll), and land are not trended and are included in the trended original cost estimates at original cost.

Respondent's trended original cost study shows that the estimated original cost of respondent's utility plant in service at September 30, 1951, was $9,215,016.34. This study indicates that the trended original cost of respondent's utility plant in service at September 30, 1951, was $12,459,509.17, at the average price level during the 9-month period ended September 30, 1951; and $12,056,885.76, at the average price level during the 33-month period ended September 30, 1951.

The following summary, set forth in Respondent's Exhibit 4, shows respondent's estimates of original cost and trended original cost: [Table omitted.]

Respondent's Exhibit 5, a reserve requirement study, develops the depreciation reserve requirements applicable to the trended original cost determinations in Respondent's Exhibit 4. The following summaries show the reserve requirement at September 30, 1951, at average price levels during the 9-month and the 33-month periods ended at that date: [Tables omitted.]

In Tables V, VII, and VIII above [omitted herein], reserve requirements are given for Account 232, Station Installations, and Account 233, Drop and Block Wires. By definition of the Uniform System of Accounts, these accounts are not depreciable for accounting purposes and reserve ratios are not applicable thereto from a strict accounting viewpoint. However, for rate case purposes, respondent applied the same reserve ratios to Accounts 232 and 233 as it applied to

Account 231, Station Apparatus. Respondent's treatment of these accounts for valuation purposes conforms to the procedure set forth in our order of July 10, 1950, Pennsylvania Pub. Utility Commission v. Pennsylvania Teleph. Corp. 86 PUR NS 292.

The testimony of respondent's engineer, in connection with his studies of original cost, trended original cost and depreciation reserve requirements applicable to those price bases, as set forth in Respondent's Exhibits 3, 4, and 5, was not the subject of cross-examination by complainant's counsel. In fact, the record in this proceeding contains no adverse testimony whatsoever with respect to these exhibits.

Respondent's balance sheet at September 30, 1951, as set forth in Respondent's Exhibit 2, includes a plant asset of $1,264,598.14 applicable to Telephone Plant under Construction. In regard to this item, respondent's witness, its president and general manager, testified as follows: "The construction program for the last several years has grossed better than $1,800,000, for example, in each of the past three years. Our budget for 1952 contemplates gross additions to plant in the amount of $1,968,000. It appears to us that we will require or will carry on a construction program in the neighborhood of $2,000,000 for some years ahead . . ."

Respondent's Exhibit 2, page 6, shows respondent's claim, for rate base purposes, of $749,803.77 for Materials and Supplies, which respondent's witness stated was "the monthly average, material and supplies on hand for the 12-month period preceding September, 1951."

The record shows that this same witness testified that respondent's claim of $284,796.60 for cash working capital was determined by taking "the total on distribution, what we call our voucher distribution which is total expenses, less material and supplies, taxes, accruals to depreciation reserve, or common stock dividend—but it does not include prepayments."

The several measures of value of respondent's telephone plant in service at September 30, 1951, offset by accrued depreciation and including respondent's claims for Telephone Plant under Construction, Materials and Supplies, and Working Capital, are shown in the following tabulation: [See next page.]

The measures of value, as summarized above, were submitted by respondent as evidence of the value of its used and useful property for rate-making purposes, and no adverse testimony relative thereto was offered by complainants. According to a statement of respondent's counsel, book cost measure of value was offered in evidence inasmuch as book cost formed the substantial base of respondent's supporting information filed with the commission in connection with its tariff supplements which became effective June 30, 1951. However, book cost is not considered an acceptable measure of value for rate-making purposes and respondent has submitted the additional measures of value tabulated above.

Respondent's continuing property records and original cost studies were not completed at the time this record was closed. However, the original cost estimates submitted herein by respondent's engineer in connection with his depreciation study are properly in-

TABLE IX

MEASURES OF VALUE
(By Respondent)

	Book Cost at Sept. 30, 1951	Estimated Original Cost at Sept. 30, 1951	Trended Original Cost Average Prices 9-Month Period Ended 9/30/51	Trended Original Cost Average Prices 33-Month Period Ended 9/30/51
Telephone Plant in service	$9,320,500.08	$9,215,016.34	$12,459,509.17	$12,056,885.76
Property held for future use	45,750.00	45,750.00	45,750.00	45,750.00
	$9,366,250.08	$9,260,766.34	$12,505,259.17	$12,102,635.76
Less: Depreciation Reserve	1,731,896.82	1,811,935.01	3,092,790.93	2,992,804.70
Net Depreciated	$7,634,353.26	$7,448,831.33	$9,412,468.24	$9,109,831.06
Telephone Plant under construction	1,264,598.14	1,264,598.14	1,264,598.14	1,264,598.14
Materials and Supplies	749,803.77	749,803.77	749,803.77	749,803.77
Working Capital	284,796.60	284,796.60	284,796.60	284,796.60
Total	$9,933,551.77	$9,748,029.84	$11,711,666.75	$11,409,029.57

dicative as a measure of value. Respondent's trended original cost estimates based on average prices during the 9-month period ended September 30, 1951, constitute little more than spot price estimates due to the brief costing interval considered. On the other hand, the original cost estimates based on average prices in effect during the 33-month period ended September 30, 1951, represent a more reasonable measure of value of respondent's property.

For the purpose of disposing of these proceedings, we will consider those measures of values set forth in Table IX which are based on estimated original cost and trended original cost at average prices during the 33-month period ended September 30, 1951. Included in each of these measures of value is $1,264,598 for construction work in progress and $284,797 for cash working capital.

Respondent made no adjustment of income that may result from placing in service the construction work in progress, although it did increase income by an amount of $45,952.36 presumably representing interest charged to construction during the test year. In the absence of any evidence on probable income from this construction work, we shall exclude the amount therefor from the measures of value and also exclude the $45,952 in determining income available for return.

[6] With respect to cash working capital, the balance sheet of respondent at September 30, 1951, reflects accrued taxes of $303,097, more than offsetting the claim for cash working capital of $284,797. Accordingly this claim is disallowed.

Deducting the two items reduces the original cost measure of value to $8,198,635, and the 33-month average price trended original cost measure of value is reduced to $9,859,635.

[7] The record in these proceedings includes a stipulation, filed by opposing counsel, to the effect that the

commission may, for the purpose of disposing of these cases, accept as the fact proven that respondent is entitled to a return of 6 per cent. Although such a stipulation is not binding on us, the stipulated return does not appear unreasonable, and we will use it for the purpose of this order.

Accordingly, the application of a rate of return of 6 per cent to respondent's measures of value as adjusted by us and indicated above, of $8,198,635, and $9,859,635, respectively, would result in a figure for annual return between $491,918 and $591,578.

Respondent's Exhibit 2 includes income statements applicable to respondent's operations for respective 12-month periods ended December 31, 1946, 1947, 1948, 1949, 1950, and September 30, 1951, also a pro forma income statement annualized at September 30, 1951.

Respondent's pro forma income statement annualized at September 30, 1951, was prepared to show the effect of respondent's rates which became effective June 30, 1951, upon net operating income. According to testimony of respondent's witness, revenues received under the new rates during August, September, and October, 1951, were used as a basis to arrive at an average figure for revenue per station, which was annualized at September 30, 1951. Operating expenses were likewise averaged and annualized at September 30, 1951.

Respondent's income statement for the 12-month period ended September 30, 1951, also the pro forma income statement annualized at September 30, 1951, as set forth in Respondent's Exhibit 2 are shown, in part, below:

TABLE X

NET OPERATING INCOME—FROM INCOME STATEMENTS FOR 12-MONTH PERIOD ENDED SEPTEMBER 30, 1951, AND PRO FORMA ANNUALIZED AT SEPTEMBER 30, 1951

	12-Months Ended September 30, 1951	Pro Forma Annualized at September 30, 1951
OPERATING REVENUES		
Local Service Revenues	$1,636,099.36	$2,007,551.70
Toll Service Revenues	1,304,417.21	1,402,654.47
Miscellaneous Revenues	165,838.16	170,987.29
Total	$3,106,354.73	$3,581,193.46
Uncollectible Operating Revenues—Cr.	4,400.00	7,200.00
Total Operating Revenues	$3,101,954.73	$3,573,993.46
OPERATING EXPENSES		
Maintenance	$430,827.65	$420,494.96
Depreciation	308,707.04	345,797.04
Traffic	1,079,842.07	1,141,829.91
Commercial	253,469.15	268,744.83
General	154,404.93	161,583.57
Miscellaneous	153,315.32	159,260.44
Total Operating Expenses	$2,380,566.16	$2,497,710.75
Net Operating Revenues	$721,388.57	$1,076,282.71

OPERATING TAXES		
Federal Income Tax	$223,174.59	$422,031.08
Other Operating Taxes	118,690.31	143,327.63
Total Operating Taxes	$341,864.90	$565,358.71
Net Operating Income	$379,523.67	$510,924.00

[8] Respondent's pro forma income statement annualized at September 30, 1951, shows that application of the local exchange rates, effective June 30, 1951, produces net operating income calculated at $510,924. Thus, respondent's evidence shows that its net income available for return upon application of its new rates is about $18,000 more than 6 per cent of the lower measure of value considered above, but is some $81,000 deficient of 6 per cent of the higher measure of value.

We have not made a finding of fair value, but we are of the opinion that any finding of fair value that could be made in view of this record would justify respondent's contention for return as indicated herein. Accordingly, we find that respondent's rates now in effect and complained of herein are not excessive and that there is no unreasonableness or discrimination apparent in such rates; therefore,

It is *ordered:* That the complaint filed by Southern Telephone Company of Pennsylvania and Middleburg Rural Telephone Company docketed at C. 15285, and the complaint filed by the burgess and town council of Greencastle docketed at C. 15286 be and are hereby dismissed, and the records therein marked closed.

CALIFORNIA PUBLIC UTILITIES COMMISSION

Joan George

v.

Pacific Telephone & Telegraph Company

Decision No. 50278, Case No. 5542
July 13, 1954

COMPLAINT *by telephone subscriber against company's refusal to restore service; sustained.*

Service, § 134 — Denial for improper use — Police request.

1. A telephone company which had received three letters from a city police department requesting the disconnection of telephone service, on the ground that it was being used for disseminating gambling information, was found to have acted with reasonable cause in effecting the disconnection requested, p. 90.

Service, § 134 — Restoration after discontinuance — Unlawful use — Racing information.

2. A subscriber whose telephone was discontinued at the request of the police because a third party, occasionally assisted by the subscriber, had used the phone for the dissemination of racing information was permitted to make application for service in the same manner as any other applicant, where it appeared that the use to which the subscriber had put the phone was not in and of itself illegal, that the third party would no longer have access to the phone, and that the subscriber had a definite need for telephone service, p. 90.

APPEARANCES: Cyril A. Walton for complainant; Pillsbury, Madison & Sutro, by John A. Sutro, and Lawler, Felix & Hall, by L. B. Conant, for defendant.

Opinion

By the COMMISSION: [1, 2] The complaint, as amended, alleges that Joan George, who resides at 1226 Sunset Boulevard, Los Angeles, California, prior to February 12, 1954, was the user of telephone service furnished by the defendant company. This service consisted of number MAdison 6–8605 which was listed in the name of Fred Woodward, the son of complainant, and numbers MAdison 6–6734, MAdison 6–6735, and MAdison 6–6736, listed in the name of Anthony George, the deceased husband of complainant. In addition there was another telephone at 1226½ Sunset Boulevard under number MAdison 6–1415, listed in the name of Ethel Pepper. On or about February 12, 1954, all of the above-mentioned telephone facilities were disconnected by the police department of the city of Los Angeles. On or about February 23, 1954, the complainant received a notice from the defendant company to the effect that the above-mentioned telephone service would be discontinued. On or about April 1, 1954, the complainant made an application to the defendant telephone company for telephone facilities to be furnished to her at the above address, in her name. The defendant company refused and still refuses to furnish such facilities. It is also alleged that complainant will suffer irreparable injury and great hardship if she is deprived of telephone facilities at her residence, and further that she did not use, and does not intend to use, telephone facilities as an instrumentality to violate the law.

Under date of May 27, 1954, the telephone company filed an answer alleging, among other things, that pursuant to Decision No. 41415, in Case No. 4930, dated April 6, 1948 (47 Cal PUC 853), it had reasonable cause to believe that the telephone service in question was to be used as an instrumentality directly or indirectly to violate or to aid and abet the violation of the law.

A public hearing was held in Los Angeles on June 28, 1954, before Examiner Syphers, at which time evidence was adduced and the matter submitted.

At the hearing the complainant testified that she was the owner and operator of an apartment house at 1226 Sunset Boulevard. At that address, prior to February 12, 1954, there were

five telephones, three were on a three-telephone rotary system under numbers MAdison 6–6734, MAdison 6–6735, and MAdison 6–6736, one was a single installation under number MAdison 6–8605, and the fifth was an extension of a telephone in the basement. The basement apartment bears the address 1226½ Sunset Boulevard, and the telephone installed there was under number MAdison 6–1415. On February 12, 1954, police officers of the city of Los Angeles entered the premises and removed all of the telephones in complainant's apartment as well as the telephone in the basement apartment at 1226½ Sunset Boulevard.

At the time of this incident there were present in the apartment, in addition to the police officers, the complainant and a Mr. Guy Cale. The complainant testified that Mr. Cale had been using the telephones for a period of eight or nine months to give information on horse racing. She did not know whether or not Mr. Cale received or placed bets, and testified that she personally did not receive or place bets over the telephone. However, upon occasion she would assist Mr. Cale in his business of disseminating horse-racing information. While the police removed the telephones, no arrests were made.

Complainant further testified that she now desires a single telephone for her personal use. In this connection, she owns some apartments in Montebello and has need to make and receive calls to the tenants there. She further testified that Guy Cale does not now have access to her apartment and will not have access to her telephone if one should be installed. It is alleged that she does not now know where he is.

There was a stipulation permitting the introduction in evidence of Exhibits 1, 2, and 3, which are letters from the Los Angeles Police Department to defendant company requesting disconnection of the telephone service in question.

The position of the telephone company was that it had acted with reasonable cause in disconnecting the telephone service inasmuch as it had received the letters designated as Exhibits 1, 2, and 3.

After a consideration of this record we now find that the telephone company's action was based upon reasonable cause as that term is used in Decision No. 41415, *supra*.

Inasmuch as there is no evidence connecting complainant with any illegal use of the telephone, and inasmuch as complainant testified she did not use and does not now intend to use the telephone facilities for unlawful purposes, there is no reason why she should be deprived of telephone facilities. The evidence in this case indicates that the telephone was used for the disseminating of racing information, although this activity in and of itself is not illegal. (People v. Brophy (1942) 49 Cal App2d 15, 120 P2d 946). The testimony also indicates that Guy Cale, who was engaged in this activity, no longer has access to complainant's apartment.

Order

The complaint of Joan George against The Pacific Telephone and Telegraph Company having been filed, public hearing having been held thereon, the matter now being ready for decision, the commission being fully advised in the premises and basing its

decision upon the evidence of record and the findings herein,

It is *ordered* that The Pacific Telephone and Telegraph Company shall consider an application for telephone service from the complainant herein upon the same basis as that of any other subscriber.

The effective date of this order shall be twenty days after the date hereof.

NORTH DAKOTA PUBLIC SERVICE COMMISSION

Nodak Rural Electric Cooperative, Inc.

v.

Northern States Power Company

Case No. 5111
July 10, 1954

COMPLAINT *by co-operative that electric company's extension interferes with its service; dismissed.*

Monopoly and competition, § 50 — Customer preference — Electric company — Co-operative territory.

An electric company may properly serve a customer located beyond the corporate limits of the city served by the company, notwithstanding that a co-operative also serves the area where the customer is situated, where the area is part of the environs of the city and the customer has indicated a preference for company service.

(NELSON, Commissioner, dissents.)

Findings of Fact, Conclusions and Order

By the COMMISSION: On the 9th day of November, 1953, the Nodak Rural Electric Cooperative, Inc., hereinafter referred to as Nodak, filed a complaint with this commission alleging that the respondent Northern States Power Company, hereinafter referred to as NSPC, had unlawfully extended its electric distribution system north of the city of Grand Forks, North Dakota, into a rural area more specifically described as the N½ SW¼ of Sec. 33, Twp. 152, R. 50, Grand Forks county, North Dakota.

A copy of the complaint was duly served upon the respondent together with notice of hearing thereon. Pursuant to proper notice, and after NSPC had answered said complaint, hearing was held in Grand Forks, North Dakota, on January 29, 1954, and the following appearances were made:

W. T. DePuy, Grafton, North Dakota, appearing for the complainant, Nodak Rural Electric Cooperative, Inc.; Philip R. Bangs, Grand Forks,

North Dakota, and Arthur R. Renquist, Minneapolis, Minnesota, appearing for respondent Northern States Power Company; and R. W. Wheeler, Bismarck, North Dakota, appearing as commerce counsel for the public service commission.

The commission, being fully advised in the premises, makes the following

Findings of Fact

This case involves a territorial dispute between a rural electric co-operative and a public utility wherein the co-operative, organized under the Rural Electrification Administration and the laws of this state, claims the exclusive right to serve a customer situate beyond the corporate limits of a city served by a public utility but a part of the environs of such city.

The North Dakota State Highway Department is constructing a new shop and office building in the N½ SW¼ of Sec. 33–152–50, Grand Forks county, about 1100 feet north of the corporate limits of Grand Forks on U. S. Highway 81 which was recently rerouted into the city.

Nodak distributes electric energy in seven counties in northeastern North Dakota, including Grand Forks county. It receives its energy from Minnkota Power Cooperative generating plant located in said Section 33 North of the city of Grand Forks and has constructed a distribution line through said Section 33. It owns a 3-phase line constructed on the east side of new Highway No. 81 from which it serves the grain cleaning plant of the State Mill and Elevator. This grain cleaning plant is about 800 feet from the new highway shop and the 3-phase line of Nodak passes within 300 feet of the shop location.

The Grand Forks Division of NSPC serves the city of Grand Forks and environs and 17 other cities and villages in the vicinity. It has served customers located immediately north of the Grand Forks city limits for many years and has constructed distribution lines running within 1500 feet of the location of the new highway shop as early as 1917. The new line built to serve the shop parallels a Nodak line. On the other hand, Nodak has built lines in the environs of the city paralleling NSPC lines. Both companies are lawfully operating in the district.

The North Dakota Highway Department requested service proposals from both Nodak and NSPC which were promptly supplied. On September 23, 1953, it elected to take service from NSPC and requested that it extend service to the building site as soon as possible.

From the foregoing facts, the commission concludes that: both Nodak Rural Electric Cooperative, Inc., and Northern States Power Company are lawfully rendering electric service to customers in the district immediately north of the city of Grand Forks, North Dakota; the new shop and office building being built by the State Highway Department is situate in the environs of the city of Grand Forks where it could lawfully be served by either the complainant or respondent herein; the preference of an electric customer for service from a particular company, where more than one electric service company is lawfully operating, is entitled to consideration by this commission.

The extension of the distribution facilities of NSPC necessary to render service to the new shop and office of the State Highway Department at Grand Forks, North Dakota, does not unreasonably interfere with the service or system of Nodak.

It is, therefore, *ordered* that the complaint of the Nodak Rural Electric Cooperative, Inc., herein be, and it is hereby, in all things dismissed.

Commissioner Ernest D. Nelson, not concurring: It is my opinion that the complaint prayed for by the applicant, Nodak Rural Electric Cooperative, Inc. (hereinafter referred to as Nodak), should be granted for the reason and on the grounds:

(1) That this extension of electric service effected by the Northern States Power Company is contrary to the provisions of § 49–0301, as amended.

(2) That the Northern States Power Company (hereinafter referred to as NSP) should have applied to this commission for a certificate or authority before extending its line to the North Dakota Highway Department shop in the N½ SW¼ of Sec. 33–152–50. By its failure to do so, the NSP ignored this commission, an administrative agency of this state invested with the administration of the laws governing in this case. The NSP was aware that this site was in an area in which the Nodak was presently serving.

(3) The Nodak was able, ready, and willing to give service to the aforementioned shop and had the unquestioned legal authority to do so. The location of the new shop was in a rural area and one in which the REA was designed to serve.

(4) The North Dakota Highway Department is a member of the Nodak Rural Electric Cooperative and, as such, is legally entitled to take service from the Nodak.

(5) The NSP held no certificate of convenience and necessity issued to it by this commission to serve this area outside the city limits of Grand Forks.

(6) Service could be furnished by the REA but a short distance from the shop, whereas the NSP had to build over a considerable distance and with much greater expense.

(7) There is no authority granted to this commission under the North Dakota laws which would warrant a "customers' preference" to be used in making a determination in this case.

(8) The NSP should have refrained from extending its service until such a time as a hearing could have been held and interested parties given an opportunity to express themselves if in favor or against the proposed extension.

(9) It was illegal for the NSP to extend their lines to the point in question because this area was already receiving electricity from the Nodak.

Upon consideration of these factors and other evidence of record, I am convinced that the NSP should be ordered to cease and desist from this service until such a time as they have received from this commission a certificate or authority to do so.

Re Pacific Telephone & Telegraph Company

Decision No. 50402, Application
August 17, 1954

APPLICATION *by telephone company for authority to increase rates; application approved.*

Expenses, § 114 — Additional income taxes.

1. Additional income taxes levied against a telephone company are properly chargeable to operating expense, p. 96.

Rates, § 146 — Increase — Additional taxes as factor.

2. A telephone company should be authorized to increase its rates where additional revenue is needed to offset increased federal income taxes, p. 96.

First Supplemental Opinion and Order

By the COMMISSION: By its first supplemental application in the above-entitled proceeding filed August 4, 1954, The Pacific Telephone and Telegraph Company, a corporation, seeks authorization to file for increased rates to produce additional gross revenues of $7,071,000 which is equivalent to increased federal income taxes imposed upon applicant by the Revenue Code of 1954. Under such code applicant will be obligated to pay federal income taxes, from and after April 1, 1954, at a rate of 52 per cent rather than the 47 per cent rate upon which its presently effective tariffs are based. With respect to the provisions of said code which would permit applicant to adopt a liberalized method of depreciation accounting for its property, applicant states that it is advised such regulations will not be prescribed until about December 1, 1954.

Applicant alleges that special rulings by the Internal Revenue Service will be necessary following the prescription of said regulations before the applicability of said alternative methods of depreciation accounting to the telephone industry can be determined. Applicant further states that it does not presently contemplate the exercise of any of the new optional provisions for calculating depreciation for income tax proposed for the year 1954 and that it will not undertake the exercise of any of said provisions without the prior approval of this commission.

The telephone rates authorized by this commission's Decision No. 50258, issued July 6, 1954, 5 PUR3d —, in this matter were based upon revenues and expenses that reflected the 47 per cent income tax rate in effect at that time. To produce the amount of additional annual intrastate revenue of $7,071,000 which is hereby found to be

necessary to offset the increase in applicant's federal income taxes resulting from the higher tax rate of 52 per cent, applicant proposes that this commission authorize such part of parts of the proposed increased rates set forth in Exhibit A to the original application of December 10, 1952, Exhibit D to the amendment to application dated March 6, 1953, and Exhibit H to the second amendment to application dated December 2, 1953, or such other rates as this commission deems appropriate.

[1] It is the rule established by the Supreme Court of the United States that income taxes, both state and federal, are a proper charge to operating expense. (Galveston Electric Co. v. City of Galveston, 258 US 388, 399, PUR1922D 159, 169, 66 L ed 678, 684, 42 S Ct 351; Georgia R. & Power Co. v. Georgia R. Commission, 262 US 625, 632, 633, PUR1923D 1, 5, 6, 67 L ed 1144, 1148, 43 S Ct 680.) The court stated unequivocally that income taxes are a proper charge to operating expense and that it is error not to allow such charge. In the circumstances, we are of the opinion that this commission is bound by the rule laid down by the Supreme Court of the United States concerning the subject in question. Therefore the additional income taxes levied against this applicant at the 52 per cent rate must now be allowed as a proper charge to its operating expense.

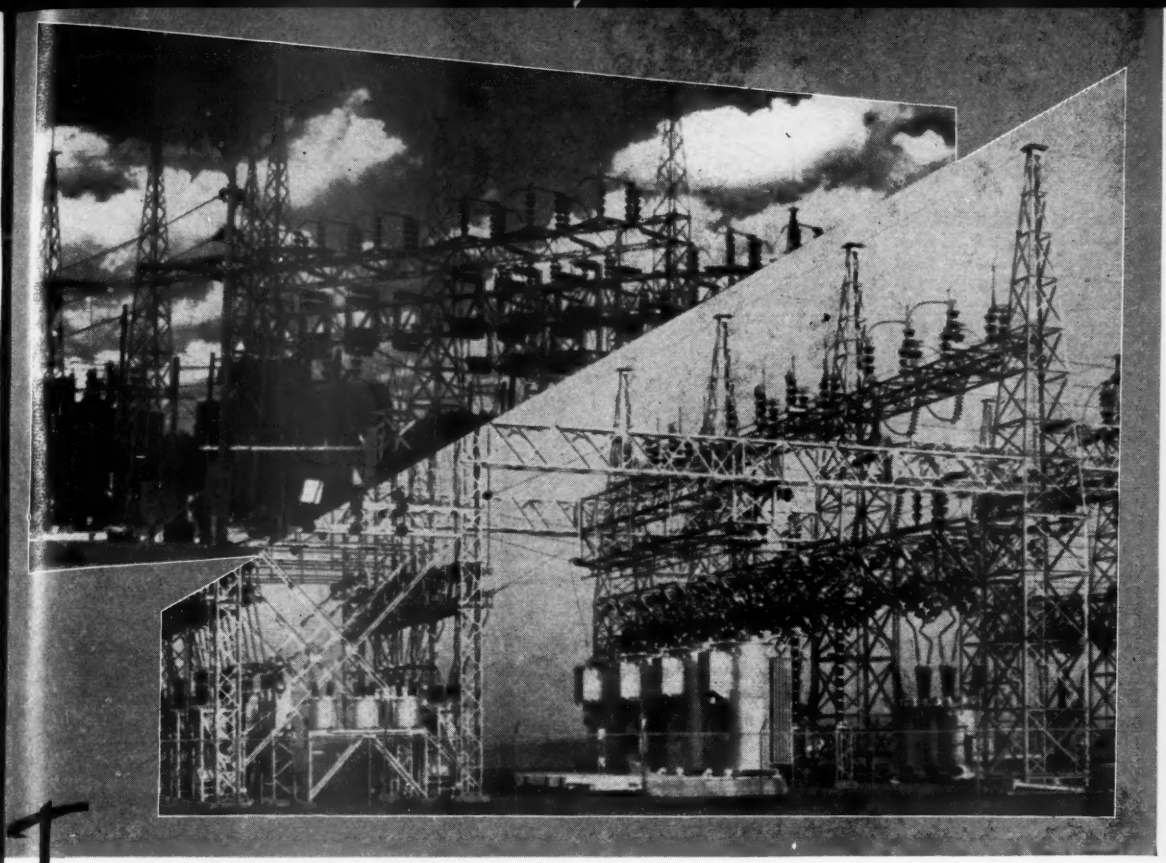
Applicant has heretofore made a full showing of the facts justifying the increased rates authorized by Decision No. 50258, dated July 6, 1954, *supra*, and we have so found.

The following method, which is in keeping with the findings in said decision, will be used to spread the increase in charges:

Category	Amount
Service Connection and Move and Change Charges	$1,946,000
PBX Equipment, Installation Charges, and Monthly Rates	1,879,000
Key Telephone Equipment, Installation Charges, and Monthly Rates	586,000
Other Exchange Services, Installation Charges, and Monthly Rates	120,000
Toll (increases in certain station rates over 100 miles, and certain person rates over 36 miles)	2,540,000
Total	$7,071,000

[2] The commission is of the opinion and finds that applicant's instant request is reasonable, that the spread of rates being authorized herein is reasonable, and that applicant's request should be granted without delay. Being of the further opinion that a public hearing hereon is not necessary,

It is found as a fact that the increases in telephone rates and charges authorized herein are justified and that present rates and charges, in so far as they differ therefrom, are for the future unjust and unreasonable.



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DELTA-STAR has the facilities. Component parts for equipment are in stock ready for assembly. Structural steel is accurately cut and punched, then hot-dip galvanized under precise control in our own shops. Careful checking and marking before shipment insures a "custom" fit.

Every detail from anchor bolts to switching equipment is covered by drawings in the construction folder for quick and easy erection.

We shall be happy to consult with you on your substation requirements for any voltage rating and submit data on design, cost and delivery. Contact factory or nearest district office.

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And this is the SPECIAL ADVANTAGE STICKER which dozens of companies are using this month on the front cover of Electrified Industry. →

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Customers are reminded of you and of the SPECIAL ADVANTAGES of being on your lines. In addition your stickers help them route your messages to additional readers.

Some companies make up stickers which carry their own slogan (a good idea). Others have Reddy Kilowatt remind the readers that electric power is their willing servant.

Power salesmen make friends for your companies and add to your "net divisable." Years ago they decided that they needed help to overcome the effects of the competitive power, diesel-and-steam, agin-the-utilities magazines that they saw on their customers desks. They helped create the picture magazine which tells the true story that electricity, properly used, is worth many times its cost.

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By using Electrified Industry they are able to maintain better-than-ever customer contact and increase the net revenue of the utilities.

ELECTRIFIED INDUSTRY and ***Today's Business***

Martin Publications—20 No. Wacker Dr., Chicago 6

Industrial Progress

Electric Industry Reaches 100 Million Kilowatts on 75th Anniversary of Edison's Electric Light

THE United States electric utility industry reached 100 million kilowatts of generating capacity on October 21st, when the huge 156,250-kw #4 generator of Detroit Edison Company's new St. Clair plant went into operation, according to Harold Quinton, president of Edison Electric Institute. This event occurred 75 years to the day after Thomas A. Edison invented the first practical electric light bulb.

"In achieving this record high," Mr. Quinton said, "the electric utility industry has doubled its generating capacity in the nine years since the end of World War II, when the nation's investor-owned, coöperative and governmental utilities had a total capacity of just 50 million kilowatts.

"Our reaching the 100-millionth kilowatt on the exact anniversary of Edison's light is a happy coincidence," Mr. Quinton commented. "Installation schedules had indicated that the milestone might not be attained until the first part of November. But favorable construction progress throughout the country brought us to the mark ahead of the previously expected date."

Completion and dedication of the St. Clair generator had been planned by Detroit Edison as a Light's Diamond Jubilee event long before its record-making 100-millionth-kilowatt role was known. John Edison Sloane, grandson of Thomas Edison, dedicated the plant.

Gas Employes Offered Home Study Course by I.G.T.

A HOME study course in natural gas production and transmission—designed for utility gas industry employes from newcomers to executives—is being offered by the Institute of Gas Technology, Chicago.

Well over 900 copies of the text for the course have been distributed since it was initiated less than two years ago, according to Capt. E. S. Pettyjohn, vice president and director of the gas institute. Approximately 900 employes of 119 gas companies of the United States and Canada are taking the course or have completed it and received their certificates of accomplishment.

Subject matter for the texts has been planned so it can be understood by persons with little or no training in the fields under discussion, Capt. Pettyjohn pointed out. However, the coverage of all subjects is sufficiently comprehensive that the courses can be integrated with cadet engineering programs and can serve as refresher courses for more experienced utility personnel. The course is offered under several plans to suit the needs and circumstances of individual enrollees and to fit into employe training programs of companies.

Detailed information on the course may be secured by writing to: The Director, Institute of Gas Technology, 17 West 34th Street, Chicago 16, Ill.

New High Sierra Dam Dedicated By Southern Cal. Edison

LAKE Thomas A. Edison, formed by the completion of the new Vermilion Dam, the most recent addition to the Southern California Edison Company's Big Creek-San Joaquin river multipurpose hydroelectric project, was dedicated recently by Harold Quinton, Edison president. The dedication, high in the Sierra-Nevada Mountains, was an event of the nationwide observance of Light's Diamond Jubilee.

The Big Creek-San Joaquin river project is the company's greatest source of hydroelectric power for Southern and Central California. The construction of Vermilion Dam and Lake Thomas A. Edison is a continua-

(*Continued on page* 28)

tion of Edison's forty-year devel ment of this project.

The use of additional water fr Lake Thomas A. Edison will add average of 122,000,000 kilowatt-ho of electricity annually to the output the company's six existing Big Cr powerhouses, making more pow available throughout Central a Southern California. During ex tionally dry years the production Big Creek powerhouses can be creased by as much as 440,000,0 kilowatt-hours by reserve water sto in the new lake.

Construction of Vermilion Da across Mono Creek, was begun May, 1953. It is an earthfill struct of approximately 5,400,000 cu yards of material with a crest leng of 4,320 feet and a height of 160 f above the stream bed.

RCA Offers "Engineering Guid book" to Microwave Radio Relay Equipment

AN "engineering guidebook" to t proper selection and arrangement RCA microwave radio relay equi ment for point-to-point communic tions in a host of applications ov distances up to one thousand mi was announced recently by the Eng neering Products Division, Rad Corporation of America.

The 51-page booklet contains phot graphs, cutaway drawings, floor plan and technical data to acquaint com munications engineers who are pla ning fixed or mobile microwave st tions, or extensions of existing sy tems, with the design features and in stallation flexibility of RCA micro wave equipment. Information covere ranges from basic RCA "buildin block" microwave and multiplexin equipment, which can be assembled i numerous combinations to meet ever operational need, to typical syste layouts, buildings, and antennas.

The booklet, "RCA Microwav Radio Relay Communications Equip ment," is available on request fro RCA Engineering Products Divisio Camden, N. J.

Westinghouse Participates in Electric Utility Training Course

THE Industrial Heating Depar men of the Westinghouse Electric Cor poration will join other indu stria heating manufacturers in supplyin equipment for an educational cours offered to electric utility compani throughout the United States by th

(*Continued on page* 30)

Pioneering New Horizons
our specialty . . .

FROM THE FIRST MOMENT Pioneer is retained to help you plan your new electric power station, Pioneer becomes a part of your company, thinking and planning in your best interests . . . Pioneer has 52 years of experience to aid in determining the necessary plant capacity and its construction cost, to select the site and design the generating station . . . Pioneer will also design any needed service or office buildings and act as your agent in purchasing construction supplies and materials . . . Pioneer offers complete valuation, depreciation and rate services . . . it will supply stock transfer and dividend distribution services . . . Our consulting staff provides experienced advice on company management, corporate finance, accounting and taxation matters . . . a well-rounded schedule to relieve your overload periods.

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PS&E 52 YEARS

Industrial Electrification Council.

The educational and training program has been arranged by the Industrial Electrification Council to show utility power sales engineers and customers the advantages of electric industrial heating equipment.

The course consists of six sessions, each taking approximately two hours. Included in the packaged course are complete "Leader" scripts, class lessons, demonstrations and visual aids. Westinghouse and other manufacturers of industrial heating equipment are to coöperate with the utilities by supplying equipment and information for class demonstrations.

L. H. Gillette, Application Engineering and Sales Manager of Westinghouse Industrial Heating Department said the course will be conducted solely by utility personnel. Westinghouse is furnishing its equipment only to show the many types of heaters and the applications and industries in which they can be used.

G-E Announces Development of Gas-Insulated Transformers

FUTURE transformers may be lighter, quieter, and safer as a result of a new manufacturing development which also may lead to the elimination of liquids as power transformer insulations and coolants, according to W. S. Ginn, general manager of the General Electric Company's Power Transformer Department.

The development, a joint project with the Consolidated Edison Company of New York, involves the first application of a high-dielectric gaseous insulation to high voltage power transformers.

Mr. Ginn said it foretells the eventual displacement of oil- and askarel-filled transformer construction by gas-filled, dry-type construction. The new dry-type units filled with sulphur hexafluoride gas will be suitable for both indoor and outdoor installation.

Two of the new type units, rated 2,000 kva, 69 kv, are now on the General Electric drawing boards. When completed, the transformers will be operated for field test experience by the Consolidated Edison Company.

With the benefit of field testing, the new gas-filled construction can conceivably be extended to considerably higher voltages, Mr. Ginn said.

New Payloader Attachments Data

"USEFUL Attachments for 'Payloader' Tractor Shovels" is the name of a new piece of literature offered by The Frank G. Hough Co. Included are sixteen attachments that are available to adapt these versatile tractor shovels to many tasks in addition to bulk materials handling and earthmoving.

The entire line of seven sizes of "Payloader" tractor-shovels, for indoor and outdoor use, are also shown. Copies of this literature are available from your Hough Distributor or The Frank G. Hough Co., 958 Seventh street, Libertyville, Illinois.

Barber-Greene Offers Catalog on Bituminous Finisher

A NEW, attractive and informative catalog on the Model 879-A Finisher has just been issued by Barber-Greene Company.

The catalog's front page features a natural color photograph of the Finisher and six other pages in the folder are devoted to black and white job pictures of the Finisher at work in a wide range of applications and locations.

Simplified drawings are employed to illustrate the machine's principles of automatic leveling and thickness control; tamping compaction and control of crown and super-elevation.

On the folder's center spread, a beautifully detailed, full color cutaway photograph shows the Finisher's inner mechanisms with great clarity. Another page is devoted to the several accessories which can be fitted to the Finisher, enabling it to perform special functions.

A copy of the Finisher catalog may be obtained from any Barber-Greene distributor or by writing directly to the company at 400 No. Highland Ave., Aurora, Illinois.

Philadelphia Electric Boosts Construction Program

THE Philadelphia Electric Company has boosted its construction program this year by some $16,000,000, R. G. Rincliffe, president, revealed recently.

Since World War II, the company has spent an average of $1,000,000 a week for expansion. In 1954, it will spend about $68,000,000 instead of the average $52,000,000.

(*Continued on page 32*)

NEW optional power steering for all models. New light-duty truck features include tubeless tires, standard—optional automatic transmission or overdrive. Service-Utility bodies that "take the workshop to the job"—available in three lengths, in nine light-duty models.

NEW MODELS
NEW FEATURES

INTERNATIONAL keeps 'em coming...

the time, to do today's truck jobs

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TERNATIONAL continually brings you great w truck features, new all-truck models, new lue for your truck dollars, in the world's most mplete truck line. INTERNATIONAL follows this licy to give you right now the developments at will help you do your hauling jobs better, t your costs and boost your profits. Before u make any truck purchase, check all the w developments shown here—then let your TERNATIONAL Dealer or Branch give you *all* e reasons why an INTERNATIONAL is your best uck buy.

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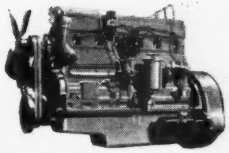
NEW multi-stop models with METRO® bodies—14,000 to 16,000 lbs. GVW. 10 other models—5,400 to 11,000 lbs. GVW with METRO and METROETTE bodies—available with new METRO-Matic transmission.

NEW space-saving, high economy, big capacity COE models—3 series, 12 models from 21,000 to 30,000 lbs. GVW—50,000 to 65,000 lbs. GCW. Also available with sleeper cab.

NEW Super Space Saver ROADLINER® conventional truck-tractors that haul all 35-foot trailers in 45-foot limit. GCW, 42,000 to 65,000 lbs.

NEW factory-installed 50-inch one-man cab that permits balanced, 2-side loading of steel, lumber, pipe and other longer-than-truck materials.



NEW increased power, with all-new 201-hp Royal Red Diamond 501 engine standard in new high-power-to-weight 220 Series models.

NEW RF-230 60,000 lbs. GVW six-wheeler, one of 25 six-wheel models—all with new maintenance-reducing, extra rugged rubber-bushed bogie.

PLUS four-wheel-drive models of 11,000 and 15,000 lbs. GVW—built for lowest cost operation in roughest, toughest terrain.

PLUS factory-installed, Underwriters' approved LPG power, available as optional equipment in 54 models from 4,200 to 45,000 lbs. GVW.

PLUS 10 diesel engines for 30 models. The INTERNATIONAL line of 185 basic models offers widest choice of power—30 engines, gasoline, LPG and diesel.

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"Standard of the Highway"

Dayton Pwr. & Lt. Receives "Oscar" for Annual Report

IN the final ratings of the board of judges in the "Financial World" survey of annual reports, The Dayton Power and Light Company was judged as having the best annual report of the Large Electric Utilities for the third consecutive year. The bronze "Oscar of Industry" was presented to Kenneth C. Long, president of the company, at the Annual Awards Banquet held recently in the Grand Ballroom of the Hotel Statler, New York.

A total of 5,000 annual reports were considered this year in the international competition, the fourteenth in the series of the surveys. These were judged in 100 industrial classifications for the Best-of-Industry awards. In the Large Electric Utilities category, Puget Sound Power and Light was runner-up for top honors, while Iowa Electric Light and Power placed third.

Northern Natural Gas Plans $65 Million Program For Next Year

NORTHERN Natural Gas Company has asked the Federal Power Commission to approve a $65,000,000 construction program for 1955. It would include a pipeline to tap Canadian gas reserves and extension of service to two more states—North Dakota and Wisconsin.

This year's program, to be completed next month, will give Northern a capacity of 1.1 billion cubic feet of gas a day, distributed in 307 cities and towns in Nebraska, Kansas, Minnesota, South Dakota and Iowa.

The company proposes to spend $34,000,000 on its Canadian pipeline, which would carry gas purcha from Trans-Canada Pipelines under a contract rece signed.

The line would extend from the Canadian bor down the North Dakota side of the Red River to Gr Forks and Fargo, thence into Minnesota, and wo connect with Northern's present system near M neapolis.

Central Maine Power Dedicates $20,000,000 Plant

MAINE'S newest hydro-electric plant was dedicat October 29, 1954, at Indian Pond as part of the C Maine Power Company's participation in the nation-w observance of the Diamond Jubilee of Light.

The $20,000,000 hydro-generating plant, known as Indian Pond Station, is located in the upper Kenne valley between Moosehead Lake and The Forks. C struction of the project was started in April 1952, the final unit is scheduled to go on line in December 19 The Indian Pond project is another forward step in development of Maine's water power.

Arden Takes Over as GAMA President

T. T. ARDEN was installed recently as president of Gas Appliance Manufacturers Association.

Mr. Arden, executive vice president of the Robe shaw-Fulton Controls Company, Lynwood, Calif., s ceeds Sheldon Coleman, president of The Coleman C Wichita, Kans.

W. F. Rockwell, Jr., president of Rockwell Manuf turing Co., Pittsburgh, now becomes GAMA's first v president and A. B. Cameron, president of Ruud Ma facturing Co., Kalamazoo, Mich., is second vice pre dent.

Lyle C. Harvey, president of Affiliated Gas Equ ment, Inc., Cleveland, will continue to serve as treasu and H. Leigh Whitelaw of New York as secretary. is also managing director of the association.

Beaumont Birch Issues Booklet On Rotary Feeders

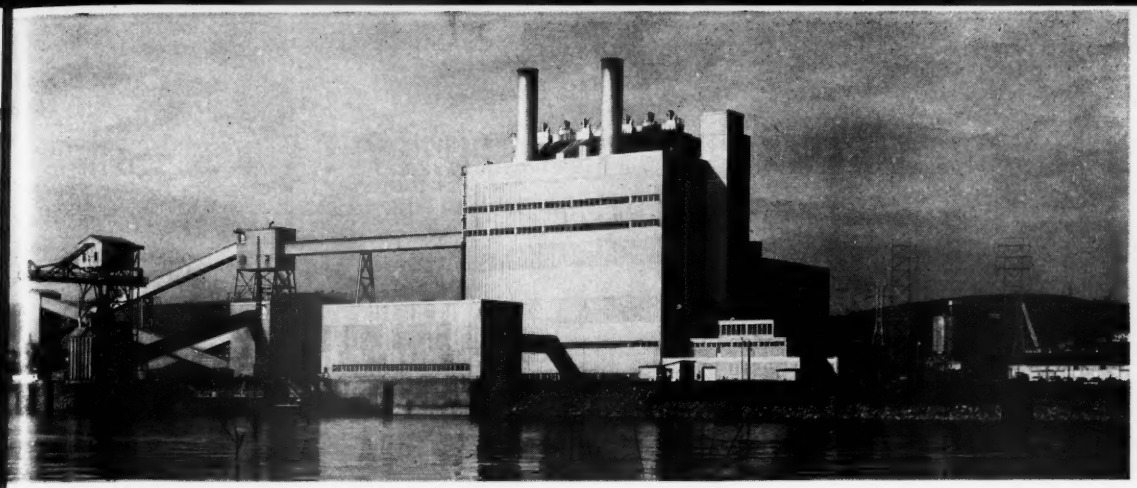
A FOUR-PAGE bulletin on Rotary Feeders has j been issued by Beaumont Birch Company, Philadelph Pa. The bulletin describes the new, completely seal Rotary Feeder for pressure or vacuum feed and t standard unit employing brass half-seals for norm feed. Normally manufactured of cast iron, both un are also available in non-corrosive metals for corrosi or abrasive applications. Rotor and body may be coat with rubber, Neoprene or Teflon for handling explos materials such as starch, or adhesive materials such sugars. Bulletin includes plan and elevation drawin and complete list of size and mounting dimensions.

Also covered are Beaumont Rotary Gates, availa in a wide variety of sizes for open and close applicatio

A. M. Lawrence Named Rust Director Of Public Relations

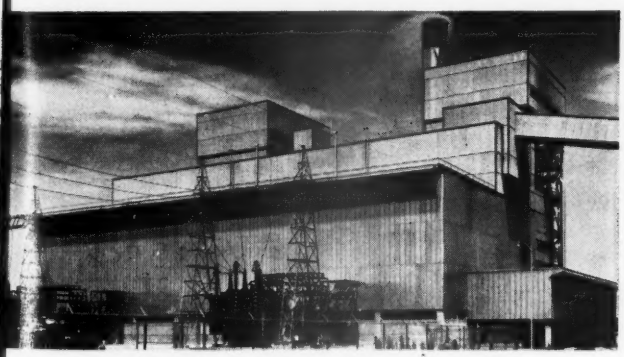
ARTHUR M. LAWRENCE has been named direct of public relations for The Rust Engineering Compa it was announced recently.

Mr. Lawrence was formerly assistant director of pu lic relations for the Hospital Service Association, Blue Cross Plan in western Pennsylvania.

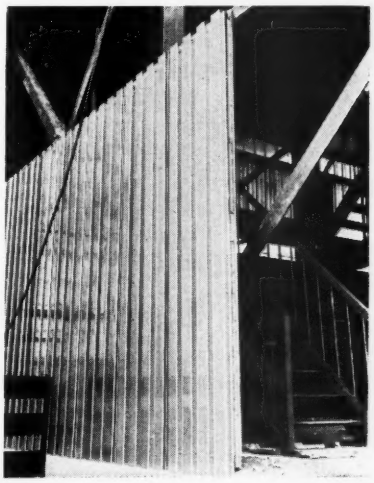


Why fine new power plants everywhere have Q-Panel Walls

Builders of new power plants in all parts of the country have specified Q-Panel walls for the following very good reasons: 1. Q-Panels are permanent, dry and noncombustible, yet may be demounted and re-erected elsewhere to keep pace with expansion programs. 2. Q-Panels are light in weight, thus reducing the cost of framing and foundations. 3. Q-Panels have high insulation value . . . superior to a 12″ masonry wall. 4. Q-Panels are quickly installed because they are hung, not piled up. An acre of wall has been hung in 3 days. For more good reasons for using Q-Panel construction, use the coupon below and write for literature.



Q-Panel walls grace the new Elrama Power Plant (above) near Pittsburgh. It was designed by Duquesne Light Company's Engineering and Construction Department. The Dravo Corporation was General Contractor.



Q-Panel walls (above) go up quickly in any weather because they are dry and hung in place, not piled up.

More than 32,000 sq. ft. of Q-Panels were used to enclose the impressive Hawthorn Steam Electric Station (left) of the Kansas City, Missouri, Power and Light Company. Ebasco Services, Inc., designed and built the plant.

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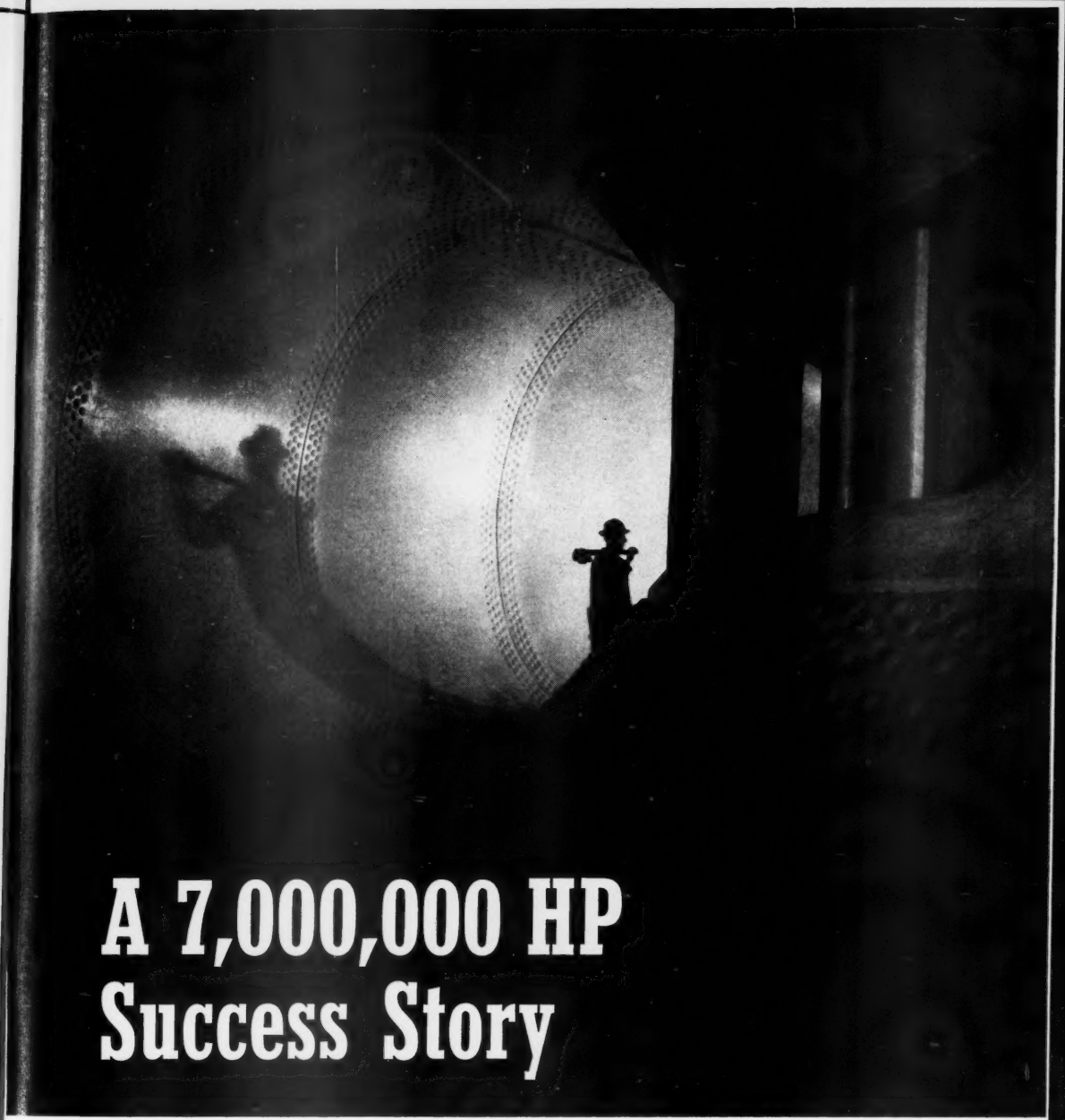

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Interior view of spiral casing at Norris Dam

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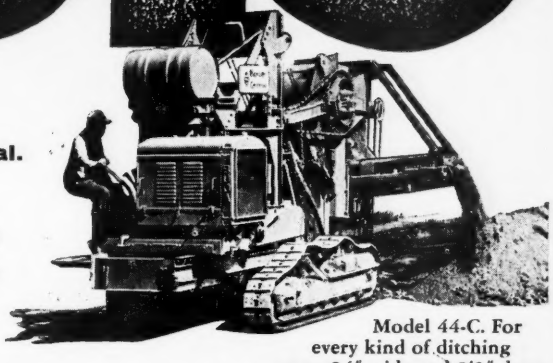

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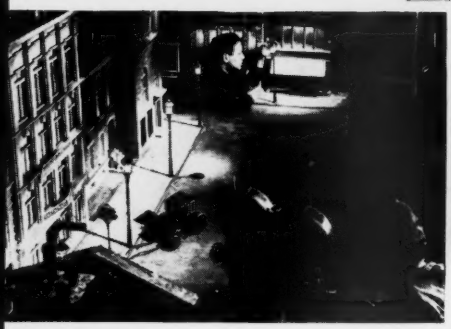

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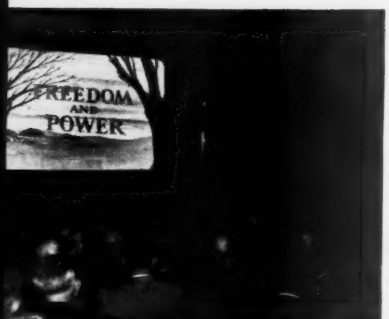

"FREEDOM AND POWER," designed to appeal to every type of audience, highlights the development of the electric power industry against an inspiring background of America's historic struggle for freedom.

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